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by James Blish



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THE SOCIOLOGICAL STORY

TO STATE the case as generally as possible, let us define the "sociological" story in science fiction as any story based upon societies or social-setups which do not exist at present, or did not exist at the time when the story was written. When I say "based upon", I do not mean merely "set in"; any story of the future is necessarily set in a social framework that must differ from the one we know today, merely from the existence of such socially-altering phenomena as spaceflight, etc. To qualify as "sociological", the plot and motivations in the story must derive from and move along with an examination of the differences between the imaginary society and the one the reader lives in himself. Thus, Dr. E. E. Smith's "Lensmen" stories, while set in the far future, within super-intergalactic frames, are not sociological stories *per se*, while Clifford D. Simak's "City" series definitely are.

We can subdivide the sociological story into three main groups, the prophetic story, the satire, and the alternate society story. As with almost any other subdivisions within a given category, almost any example of one section may have ele-

ments of another, and some may combine all to such an extent that the listing is purely the arbitrary choice of whomever makes the list.

THE PROPHETIC STORY. In this type we have a sober examination of what the author thinks the future may be like if particular trends present in his own society, or in contemporary societies, continue to their logical extreme; or if some sort of revolution (political, ethical, technological) which he feels ought to occur, or which he fears may occur, comes about. The various utopia stories and their obverse fall into this classification.

Edward Bellamy's "Looking Backward" and H. G. Wells' "When the Sleeper Wakes" are classic examples of the utopia-or-obverse story. (Examples earlier than the Industrial Revolution would not come under the heading of science fiction.) And since magazine science fiction began to bear steady fruit, anything like a complete listing would require quite an extensive research project—even when pre-1926 reprints are disqualified.

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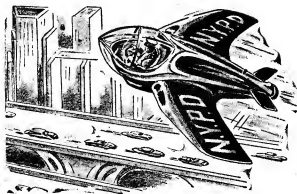
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This was one secret which must be shared.



THE

LAST CHANCE

by RICHARD DE MILLE

ON FEBRUARY first, 1961, the government of the United States turned over to the government of the Soviet Union the complete theoretical formulation behind the EX-Bomb, as well as photographs and diagrams of the installations required to produce it. It was an ironic thing. Communist agents had been working feverishly to steal the new secret, and had failed to get any but fringe information. And now, the whole plan was in the hands of the Soviet government, by act of Congress.

The Kremlin paused in its last-minute preparations for releasing the holocaust of hydrogen and lithium fire upon the enemy. The long, man-murdering missiles rested in their secret subterranean tubes. They waited to rocket out into the clear Siberian air, up to the sterile blackness of space, around half the earth, and down again at thousands of miles per hour to pinpoint hits upon every hydroelectric plant, heavy industry and population center in the United States. And the masters of world collectivism

studied the pages and pages of notes and explanations and the great spread of blueprints which had been sent, by way of Geneva, from the clanging arsenal which America had become. As they looked, their faces grew grave, and they glanced at one another in wonder and hesitation.

In spite of ten years of statement to the contrary, in spite of contra-indications in theory and observation to that time, the former year of 1955 had seen the discovery, by Drs. Kurt Schwartz and Irving Green, of the principle which gave the world its first defense against the annihilation of its populations by nuclear winds, which are hotter than the sun. It was an irony, an uncomfortable solution. It made the world even less safe than before. But it did stop, at the last minute, the orders which would have begun man's greatest expression of his inability to live by noble principles and to communicate those principles to his fellow man through all barriers of ignorance, apathy and carefully nurtured hate.

WHEN, IN 1957, the plans for Project Exponential were told to the President, that no-more-than-mortal man went into seclusion for five days to search the depths of



his soul for an answer to the greatest, most critical question which any man had ever faced. It was a calculated risk so large that no military chief had even dreamed it before. But it was a risk which offered to halt, as nothing else could, the cruelest war the earth had known and save the lives of fifty to a hundred million Americans and an equal number of unsuspecting Soviet citizens. The chief executive weighed, on the one hand, the unheard-of suffering and destruction which was sure to come; and on the other hand, the chance of losing all that man had ever been or had ever hoped to be. War seemed inevitable: Project Exponential was the only possible means of stopping that war. The President, confronting his God with ashen face and trembling body, made his decision.

Work began to alter in the atomic plants. Plutonium, lithium and hydrogen units

gradually ceased to be born out of the intricate and massive jungles of steel and concrete. Labor and facilities were diverted as quickly as possible to the development and manufacture of EX-Bombs. In this case, there was no need—or rather, no opportunity—to test the product before it went into quantity production. Its efficiency, even its workability, were deduced by mathematics and were left at that. Nine out of ten scientists who read the equations and the plans came away with horror written on their faces. It was convincing; they knew it would work if it were ever set off.

AND SO THE bulky, un-beautiful EX-Units came off the assembly lines at last, surrounded by greater safety precautions than any previous product of human industry. Eighty to ninety percent of the labor and equipment in the bombs were devoted to rendering them safe to handle. Ten to twenty percent only were given to the explosive machine itself. Each bomb took three freight cars to transport it. No need, this time, for tactical considerations. No need for a weight which could be lifted by a rocket. No need for size which could be hidden from enemy eyes. No need for pro-

ducibility engineering. Only a small number of bombs were needed. They could be as big, as clumsy, and as expensive as anything which had ever been thought of, designed or built. For, they were the last of their kind, and none could come after them.

The Russians looked at the photographs incredulously. They pored over the drawings. They had their scientific and intelligence chiefs before them and demanded refutation of the monstrous document. But their minions did not reasure them. Yes, said the scientists, the new theory made sense, though no man could say whether it was true, and no man could ever test it. Yes, said the intelligence men, the Americans had been turning their nuclear industry increasingly to a new and unknown project; yes, they had been, with little or no secrecy, building vast installations of an unknown nature all over the United States, in or near prime nuclear targets. Yes, yes, it was all true. There was nothing in the American claims which went contrary to reason or observation.

THE MASTERS of world unfreedom shook their heads and clenched their fists and knew they had lost their chance to win the world chess

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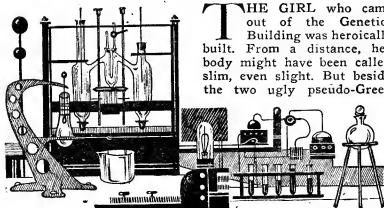
The tetraploids were giants, and they had a number of the superior qualities one ordinarily would link with the idea of a giant — as well as some you wouldn't think of. But the tetraploids were also a minority, a feared and bated minority; and the probable course of events should have been obvious to any student of history . . .

GIANTS IN THE EARTH

Complete Novel

by **JAMES BLISH**

FIRST
MAGAZINE
PUBLICATION



THE GIRL who came out of the Genetics Building was heroically built. From a distance, her body might have been called slim, even slight. But beside the two ugly pseudo-Greek



statues which flanked the building, her height showed. She was at least eight feet tall.

She looked indecisively down the long rank of wide steps, her eyes slitted like a sleepy cat's against the morning sunlight. At the foot of the steps, a small knot of students stopped gossiping, and heads turned toward her. Sena knew the hostility in that silence.

She went down the steps, mincing over them like a dandy. They had not been laid for such a slender goddess; the risers should have been two inches higher for her, and the platforms nearly that much broader. As she approached them, the students pointedly turned their backs and examined the state of the weather.

"Damned l u m m o x e s —" somebody muttered.

"Everybody over nine feet tall please leave the room," said some one who had read his Carroll.

Sena had heard it all before but it still hurt. It was hard not to say, "Out of the way, pygmies," or in some other way make a virtue of difference.

Some of the giants had done that, in the first days; a group that had gotten notions of superiority not only to ordinary diploid human beings, but to

Dr. Fred himself. Their end had not been pretty, but it had been edifying. Dr. Fred told that story often.

"Don't get the idea," he said, "that you're above your diploid fellows just because you can look down on them physically. The day may come when chromosome - doubling will be commonplace. If that day comes, it will be because the process has real advantages over normal reproduction; but those advantages are yet to be proven. If you want to see them proven, don't give yourself airs—or you won't survive to see."

THESE DAYS the giants listened to Dr. Fred. He had made the giants. He was very old now, and could be expected to die before the year was out; but somehow the giants did not expect him to die. He was a man apart from the other diploids; it seemed impossible that their physical limitations could apply to him—

Careful, careful! The shortness of the diploid lifespan was not necessarily a drawback. That kind of thinking led to paranoia.

Sena passed the students, allowing herself the small pleasure of pretending that she hadn't seen them. Like most of the giants, Sena felt

vaguely uneasy among them, like a parent in Toytown.

Yet it was more than that. The tallest buildings in the world were not tall enough for her, for even the tallest of buildings had entrances—entrances which would not admit a giantess unless she stooped. The whole of human civilization seemed waiting to be rebuilt, bigger and better, cleaner and higher.

And the time! The giants had so much of it. Their life-spans had not yet been measured, for, thus far, none of them had died except by violence—that had been the Pasadena pogrom, fifteen years ago. Dr. Fred said that—unmolested—they should live up to six times as long as the normal diploid human. The one-in-a-thousand tetraploid adult organisms produced by nature, mostly in Lamarck's evening primrose, lived six times their normal span; and the first synthetic tetraploids had proven just as long-lived.

Of course, the very first synthetic tetraploids had been plants—*Datura*, the common chickweed, developed at Smith College in 1937. The U. S. Department of Agriculture had later extended the process profitably to food plants of all kinds. It was the work on rabbits and pigs conducted by Haggqvist and his

associates at Stockholm's Karolinska Institute, however, which had proven artificial polyploidy possible in animals; from that momentous day in 1950, the road leading to Sena was clear.

FOR SENA, who was not yet forty, the whole small world was in the throes of an endless springtide; a youth that would last more than a century, with toy bridges and houses and roadplanes clustered at her feet, and more than time enough to learn everything one needed to know, and the high-browed, god-like figures of lovers striding through the narrow streets of diploid man...

The world waited, flooded with delicate greenness that would never die.

"Sena!"

She turned. Sam Ettinger, the young, black-haired radiation expert, was running after her, traversing the cement squares in long bounds. The students scattered up the steps to watch him pass.

"Hello, Sam."

He pulled up, smiling. His eyes crinkled at the corners; he had a way of looking at people as one might look at a sleeping tiger cub—with curiosity and admiration, yet with a certain wariness.

"You're very aloof these

days," he said. "One would think we weren't committed to each other for this cycle."

She reached out for his hands. "Sam, don't. There is always so much to think about; you know that. How was the house?"

HIS MOUTH drew down at the corners. "No soap. When I got to the development, they had a sign up."

"'Built To Scale'?"

"Yes. To *their* scale, as usual. The agent was willing to let me rent if I could pay three times the tariff, but I wouldn't."

"I don't blame you." Sena released his hands hopelessly, all the pleasure she had taken in the sunlight oozing out of her. "Sam, what are you going to do? Dr. Fred can afford to be patient because he's old. But we've got to live in this damn society."

"It has its drawbacks," Sam said. "But we can probably outlive them. Anyhow I have the outside job I told you about—"

"I still don't quite see that. I thought we were forbidden to take any part in diploid sports, by the diploids' rules."

"We are, we are. But there's an exhibition football team of tetras, and some other exhibition teams. Strictly spectator-sports, you see. Hockey, too,

and boxing. We're to play in armor, with a 25-pound football, against another tetra team, and the crowds come in to watch us murder each other."

"Sam, Sam," Sena said. She began to cry. The students watched, whispering interestedly. "What a beastly thing to have to do—even ditch-digging would be better—"

"Ditch-digging?" Sam said quietly. "Sena, I tried that. And I tried to get a job as a stevedore. And as a hod-carrier. And some other things of that kind. But the unions won't have it. Maybe by the time I graduate there'll be a Radiologist's Union, too!"

HE LOOKED abstractedly at the bright blue sky. "They're right, by their own lights. We're labor-saving machines. We can do more heavy work, and do it faster, than the diploids can. If the unions admitted us, sooner or later the diploids would be out of work. But this exhibition football doesn't do any economic harm to the diploids, because we aren't allowed to play against any but our own kind. Do you know what Methfessel—that's the promoter—wants to do next?"

"What?" Sena said, swallowing the lump in her throat.

"He wants to stage tourna-

ments. The real thing; he wants to put tetras on big brewery Percherons, give them spears, swords, all the rest of the medieval armory. If he can get government approval, he'll pay up to a hundred bucks a day."

"For murder!"

"Not necessarily. Maurey says molybdenum steel would make a strong enough armor against a chrome-steel spear; and of course swords would be just a joke—"

"Sam, don't you see? They're making us fight each other! How long would it be before we took these tournaments seriously? Before we split up into rival groups like the Roman charioteers, with bribes and assassinations—Maurey must be mad even to consider it!"

"Well, Maurey's pretty bright," Sam said carefully. "Anyhow I'm not in on the tournament deal, Sena. I'm just playing this armorplated football. It's a living. Maybe we'll even find a house after a while."

"Maybe," Sena said. "In the meantime we'll just have to go on at the dorms, I suppose. I envy the ones whose parents live near the University."

"You needn't," Sam said. "My folks are afraid of me. Somehow they thought the paracolchicine treatment was

just going to make me turn out big and strong. Now it's 'oh, not so damned shaggy!' You know. And my older brother hates my guts. I make him feel puny—and he claims it hurts his business connections to have a tetra in the family. He makes it sound like having a live crocodile on a leash."

"I know," Sena said somberly. "But Sam, it's worth it. There's an old Indian legend about the horned-devil caterpillar. Mother Carey offered it a drink from the Double Cup—one half held wine, and the other half held, I forget, something unpleasant; anyhow there was only one place to drink, so you got a little of each. That was how the horned devil got to be so ugly as a caterpillar, and so beautiful as a butterfly."

Sam snorted vigorously. "I know that business, that's just pie-in-the-sky—the old Emersonian compensation. I'm out to make things better for us poor damn caterpillars—you don't soothe me by promising me I'll be a pretty butterfly in the future. Let's go, we'll be late to Philosophy."

THE PUPPY was now about six weeks old: able to stagger about the laboratory floor, and to essay a tentative bounce or two, but given to

frequent collapses of the rear section, and unexpected subsidences into sleep in the middle of some grandiose project. She had a box of her own, but preferred to sleep in the overturned wastebasket, which was far too small for her.

Dr. Fred—Frederick R. Hyatt, on formal days—looked at her critically while she chewed on the leg of a table. Maurice St. George watched them both, with an expression which seemed to indicate that he didn't know which of the two amused him more.

"But why a dog, Dr. Fred?" he said. "Surely you must have finished all the experimenting with animals before you asked for human volunteers. Something new?"

"Hmm?" Dr. Fred said. "New? No, not very. It's a line I abandoned temporarily in the early stages of the work. She's a test-tube baby; her mother was inoculated with spermatozoa in physiological salt solution, plus a dollop of paracolchicine."

"Only the sperm chromosomes doubled, then?"

"That's right," Dr. Fred said. "She's a triploid, not a tetraploid. Looks like she's going to be a horse just like the rest of my children, though."

spread her legs to do battle, and released a deafening yap of exasperation. Dr. Fred heaved her up and put her back in her box, and threw the blanket over her head. "Go to sleep, Decibelle."

Finding it suddenly dark, Decibelle obediently—if involuntarily—fell asleep.

"She'll make a fine pet," Maurey said.

"Don't you believe it, Maurice. We don't dare spring gigantic animals on the public at this stage of the game. She's going to be the world's biggest mutt—bigger than any possible Great Dane or St. Bernard. We'd have an injunction slapped on us at once."

Maurey stood up. Dr. Fred noted interestedly that he did not duck his head as he did so, a gesture that was habitual with the other tetraploids. Of course the normal room ceiling offered ample clearance for even the tallest of them; but the *feeling* of being boxed in was hard to battle. Maurey, evidently, had conquered it; he seemed generally to be the best adjusted to his status of all the giants, and inarguably he had the highest IQ.

Well, no reason to be surprised at that. Despite its inducing of doubling in the chromosomes—or, more accurately, its inhibition of reduc-

THE PUPPY toppled over, blamed Maurey for it,

tion-division during mitosis—the paracolchicine process did not really have any genetic effect; that is, it did not affect the genes themselves. What it produced was called a “muta-

tion” because it was a change of form which bred true; but it was not a true mutation, a cataclysmic mutation springing from chemical change in the heterochromatin of the



“Sam, try not to use the jets so much. If you call on them in scrimmage, you’ll hit somebody, and we’ll be penalized.”

genes. Instead, it simply made it possible for the ultimate somatic expression of the individual’s inheritance to come through on a tremendous scale. If there were brains in that great dark head, it was none of Dr. Fred’s doing.

Still, high intelligence did not imply superior ability to

come to terms with one’s social environment; indeed, there seemed to be some sort of rough correlation between high intelligence and the accumulation of aberrations. Dr. Fred sighed inaudibly. The pioneering experiments in polyploidy hadn’t had such bafflingly complex overtones;

neither chickweed nor rabbits are much beset by emotional upsets. He wanted badly to know the nature of Maurey's adjustment; but he was not a psychologist and had no training in that field; and a lively sense of the personal inviolability of his "children" would not allow him to require them to submit to analysis.

THROUGH the grimy window of the lab he saw Sena and Sam, talking earnestly on the sidewalk near the building. They all were children, really, very alone in a settled world, and prone to whisperings, gigglings and secret societies with long names. Except that their elders might yet kill them for that secrecy—or for less understandable reasons.

"I'd like to have that dog," Maurey said, thrusting his hands into his jacket pockets. "I don't think I'd be afraid of the diploid neighbors."

"Sorry, Maurice. Not yet. I need her here, anyhow."

"I grant that you need her, since she's triploid," Maurey said. He looked down at the huddled blanket, frowning. "But I want her when you're through. No matter how big she becomes, the law can't fit an ordinary dog into the description of a wild animal be-

ing kept *res naturae*, and there's no other way they could take her from me unless she gets rabid or something like that."

Dr. Fred forked his fingers and pushed his glasses up against his eyebrows. They were old glasses—for his eyesight had stabilized years ago—with battered mother-of-pearl nose-pieces, and every time he had to look down at the puppy they slid solemnly down to the end of his nose.

"You'll just make trouble," he said. "I've no doubt you could beat the law on such a matter, Maurice, but I don't think it advisable to try. It isn't the laws that exist now that we have to worry about, but the laws the diploids will enact later if we give them cause."

"FORGIVE me, Dr. Fred, but I think you're overcautious. And perhaps overly modest, too. The giants are here to stay; and there's no point in continuing this crawling away from conflict with the diploids. There are plenty of provable advantages to tetraploid animals. Cats, for instance. A tetraploid cat would be the perfect answer to the rat problem. A diploid cat won't mess with a rat at all."

"Cats," Dr. Fred said, "have a way of lying down, grab-

bing, and kicking with their hind feet when they feel playful. A tetraploid cat that did that with a diploid child would rip the child to shreds."

"Such a cat would be no more dangerous to the human child than the bathtub, statistically."

"Maurice, you aren't dealing with statistics. You're dealing with emotions. The fifteen tetras in Pasadena had logic and reason on their side. Have you forgotten what happened to them?"

His hands still dug into his coat pockets, Maurey turned on his heel, took three quick steps, and struck the crown of his head violently against the door lintel. Dr. Fred winced in sympathy. Maurey stood silently, his back to the room. Then he turned.

"No, I haven't forgotten," he said. His eyes were streaming tears, but he wore a twisted, triumphant smile, as if his failure to swear at his accident were a major victory. "I won't ever forget that. The diploids are trying to forget it ever happened, but I won't ever forget. They weren't very bright, those fifteen; we've learned from them. They depended upon force alone. They forgot force's necessary adjunct."

"And what is that, please?"

"Fraud," Maurey said. He went out.

Dr. Fred watched him go blinking unhappily. Maybe Maurey's "adjustment" was—

The puppy grumbled and thrust her head up out of the blanket. Dr. Fred pushed her nose back down into a corner of the box. "Sleep, dammit."

II

THE TITANS, as Ira Methfessel had dubbed his first team, followed the practice plays obediently enough, but even without the armor they were slow—almost as slow in their heads as they were with their feet. Most of the young tetraploids had seen plenty of football games, but they had never been allowed to play during their undergraduate days; and the armor and the business of managing the shoulder jets was a double handicap.

After the first blackboard down the plays to four or five session, Ira disgustedly cut cross-bucks, two rudimentary spinners, and a few laterals—all, in essence, straight power plays. It seemed to console him somewhat to meditate that the Atlanteans were tetras, too, and unlikely to be any better than the Titans; and, anyhow, all the crowd wanted was the kick of so much brute force in combat.

Ira was a diploid, the only one on the team, and the promoter of the whole project. He was nearly seven feet high, with flaming red hair, but he looked like a freshman among the hulking tetras. Nevertheless he treated them like high school kids. He sweated and swore, and the giants swore back cheerfully; stumbled; got in each other's way; dropped the weighted, jet-powered football, and moved their big feet a little faster. By the day of the game, Ira had whipped his bulky charges into something that resembled a flexible and resourceful team instead of a herd of rhinoceri.

IT SHOWED results almost at once. The first ball jammed somehow and went completely out of the stadium, still under power—it was picked up later outside of town, partially melted—but Sam got the next one and made off with it. The Titans made their first down with a clangor like a chorus of trip-hammers.

"Good," Ira told the huddle. "Sam, try not to use the jets so much. If you call on them in scrimmage you'll hit somebody and we'll be penalized."

"Okay," Sam said. "I was trying to get clear of that left guard of theirs—"

"Sure; but you're not allowed to hit a man while you're under power, you know that. Lucky the ref didn't see it, even though it was an accident. All right; number 80 this time."

The Titans fanned out, the bright armor glittering and flashing in the sunlight, and crouched along the rush line. Sam took his left half spot and hunched watchfully. He was surprised to find that he was enjoying himself. The emotions of that first brutal striving, the clashing of mailed shoulders and chests, the pistoning of sollerets against the rubbery turf, released in him a willingness to hate that fifty years of Dr. Fred's indoctrination had not been able quite to quell.

HAMMY SAUNDERS fired the aluminum ball back, its stripes of black and yellow paint turning lazily as it travelled. Ira snaffled it and pitched it underhand to Sam. Already the armored figures were deploying, fending off their opponents with battering gauntlets. The crowd howled delightedly.

Sam located Hammy's red-splashed pauldrons among the scattering giants and pulled the ball back. His latticed plastic helmet was beginning to fog. An Atlantean bore down upon him.

He fired the ball. It soared, riding the thin, hazy flame of its jet. Hammy faded back, his shoulder-jets spitting, and left the turf in a tremendous leap. The ball slammed into his chest. He somersaulted once and hit the ground.

He stayed there.

The ref's whistle blew. The two teams milled and converged, rivalry forgotten. Sam wormed his way into the melee.

Hammy's helmet had split along the line of the front lattice. A dinged-in bar had dug out his right eye, which lay next to his ear, free upon its nerve-trunk. Blood swamped his cheek. He was still clinging to the ball. The

Decibelle recognized Sam, and lifted her chin from the dead man's shoe.



grandstands yelled their approval.

"Look out, Sam," Ira's voice said. "Cripes, let a man through, you guys—he needs hospitalization—break it up, break it up—"

The giants, on both sides, made a low and ugly growling. The refs separated them hurriedly. Hammy was taken off on a stretcher.

Sam, don't you see? They're making us fight each other!

IN THE HUDDLE, Ira said, "Let's get back at 'em. They can't get away with that, fellas. Let's murder 'em. Take a straight buck over left guard—that guy hasn't had a fist in his face yet—"

"Not me," Sam said.

"Eh? Don't give me that. Who's running this team?"

"You are," Sam said. "But I'm quitting. The Atlanteans didn't do anything to Hammy. It was an accident. He lost his eye because he was playing this tomfool game. I'm quitting."

"You're yellow, you lum-mox."

Sam reached out with one ring-mailed gauntlet and took Ira by his left shoulder. The tough metal bent in his grip. The diploid stumbled, flailing for balance. "Leggo—"

"Be careful of your language, squirt," Sam said. He swallowed. His eyes burned

in their sockets, and the armor creaked across his shoulders. "I'm sick of your games. For two cents I'd take you apart."

He jerked his hand away suddenly. The pauldron came away with it, with a screech of outraged metal. Sam took it in both hands and crumpled it methodically, like wrapping paper. The sudden, irregular give of the plate in his palms was like the breaking of bone, and he was shaken by an ugly love for it.

"Here," he said. He handed the wadded plating back to the promoter, his mouth twitching with the bitterness in it. "Be glad it wasn't you. I'm quitting—*now* do you understand?"

Ira took the bunched mail numbly, staring at Sam through his slotted plastic fishbowl. "Look, Sam," he said. "You're blaming *me* for this. I didn't do it. Nobody did it, like you say. You knew this job was dangerous, and so did Hammy—"

The ref's whistle screamed, and the whole tense group was marched five yards down the field for overtime. None of the Titans seemed to notice; they followed the quarrel and gathered around it again. Some of the Atlanteans began to filter over into the Titan huddle. The crowd

grumbled with puzzled impatience.

"Ira's right," Chris Harper said. "It isn't his fault."

"I said I knew it was an accident," Sam growled. "Just the kind of accident the shrimps in the stands came to see. The penalty we pay for being so numerous—if there were fewer of us, we could make our livings in a sideshow. I'm through with both kinds!"

He strode off the field, his pads creaking. The crowd booed him enthusiastically.

MAUREY was waiting for him as he came out of the locker room. The older giant was wearing a crooked smile that puzzled Sam, and, in his present mood, infuriated him despite his respect for Maurey.

"What are you grinning at?" he demanded. "You think it's funny when a man loses an eye—like them—back there?" He jerked a thumb over his shoulder in the direction of the bleachers.

"Not at all," Maurey said soothingly. The crooked smile dimmed a little, but did not quite disappear. "I take it pretty seriously, I assure you, Sam. Going back to the lab?"

"Yes, if you need me. Anyhow I've no place else to go until Sena is free."

"Good," Maurey said. "I'll give you a lift, if you like. My roader's in the parking lot."

Maurey said nothing further until the roadplane was on the express lane leading back toward the city; and even then he seemed only to be making talk. Finally he turned up a ski-jump, snapped the rotor open, and climbed the craft steeply. "So Ira's finally made you mad," he said.

"Yeah," Sam said. The word was muffled; he sat immobile, staring straight ahead. He had already begun to feel a little guilty for his outburst on the field, but Maurey's question made him rebellious all over again. "I think maybe it's about time this damned culture found productive jobs for us, Maurey. The accident wasn't Ira's fault. It was the fault of all the diploids."

"All?" Maurey said quietly.

"Yes, all. I suppose you want me to except Dr. Fred. I won't. He means well, but he's been one of the major factors in keeping us satisfied—moderately, anyhow—with the status quo. That can't last forever."

MAUREY cast a sidelong glance at him. "I've been telling Dr. Fred that," he

said, "but he's too old to change. We'll have to make our future ourselves, if it's to suit us."

"You've something in mind?" Sam said curiously.

"Yes, I think so. I want to be sure I'm not just setting up a Pasadena before I talk too much about it, though."

"I'm a quiet sort," Sam said. "Can't you give me some idea—"

"Well, in essence it's quite simple. I want to start a homesteading project. The unmilitarized part of the Moon has just been declared public land; I think we could occupy it profitably."

"That sounds unlikely," Sam said. "Anyhow it is Pasadena all over again, Maurey, and it's just what the diploids would like—get us all into a ghetto somewhere where they could bomb us to extinction all at once."

Maurey peered downward, and then began to sidle the roader toward the Earth. "I'm not quite so stupid, Sam," he said, smiling again. "Of course it's like the Pasadena thing on the surface—intentionally. I made up my mind long ago that the only way to get anything from the diploids is to seem to be doing things their way. *Seem* to be, Sam. Actually I think our tetraploid homeland won't last more than a month or so.

By the end of that time we'll either be extinct, or be in a position to dictate the terms of our tenancy on diploid Earth. I hope some day we can have a *real* planet, and I rather hope it'll be this one; the tetras are bound to multiply. Most parents will become more and more reluctant to deny their children the advantage of tetraploidy in a world where tetras are part of the normal order of things."

SAM WAS a little confused. "You forget the low-fertility angle," he objected. "There's still plenty of religious and moralistic opposition to our plural-marriage arrangements; and even more sentimental worship of motherhood. Many a family would drop dead before it made a prospective daughter into a giantess—that's why we're so short of women—and the diploids are already too proud of being more fertile than we are."

"Sure, sure. That's as may be. I didn't say this was going to be easy." Maurey dropped the plane skillfully to the highway, collapsed the rotor, and guided it to the lane that led to the university. "My point is that we'll have to seem to be playing along with the diploids for a while. In the final analysis, our job is



just this: to trick the diploids into putting weapons into our hands. Dr. Fred has already given us one—

"You mean our size?"

"No, that's no great advantage yet, and besides it's not the kind of weapon I mean. Have you met Decibelle?"

"That fool puppy? You bet. She mangles my shoelaces."

"Dr. Fred doesn't see all the implications, I'm glad to say," Maurey said. "Also the reactionless effect that we're working on will be a weapon sooner or later: we have you to thank for that, Sam. But I'm depending most of all upon Ira and his silly tournament."

"Great Jupiter," Sam said. "The next thing you'll be saying is that you want me to go back and play football for Ira."

"I want you to do exactly that," Maurey said calmly. "I can't order you to do it, because I'm your superior only in the lab; but I'd appreciate it if you would. I want Ira's tournament promoted for all it's worth. If we can

In four seconds, Sena had memorized two pages of production tables...

get the reactionless effect developed in time, I'm going to give that to Ira, too; it'll be a great improvement over

those shoulder-jets; and as a weapon it could be one of the deadliest side-arms in history—among other things. I leave it to you, Sam, to imagine what those other things might be. Here we are."

HE GARAGED the road-plane in the radiation lab's basement and swung the door open. "Coming in?"

"Sure," said Sam abstractedly. "What's the great to-do about the reactionless effect, Maurey? It's only a laboratory toy as far as I can see. I'm pretty well convinced that we'll find out where the backlash is going to before long."

"You haven't found it yet?"

"No-o-o-o. But I think it must be getting recirculated somehow, the way a regenerative circuit uses back E. M. F. It isn't logical that there should be no reaction at all!"

Maurey shrugged. "Mr. Newton's Third Law of Motion may not be any more universal than any of his other laws," he said. "By all means try to find where the recoil is going, so there'll be no mistake. But if it turns out that there *isn't* any 'equal and opposite effect'—"

"There will be," Sam said flatly. "There always is. Aren't you coming up, Maurey?"

"No, I've got work elsewhere. You have your key,

haven't you? All right—see you tomorrow."

SAM CLIMBED the stairs and let himself into the lab in a brown study; he was hardly aware of Maurey's absence. Essentially a scientist, Sam was easily swayed when it came to political maneuvering—but the faintest smell of a technical puzzle was enough to wipe politics from his mind. He had already forgotten the quarrel with Methfessel; he had almost forgotten Maurey's hints about a tetraploid "homeland." The suggestion that Newton's Third Law of Motion actually might not apply to his toy had been enough to enlist his total attention.

He plugged the power jacks into the apparatus and waited for the tubes to warm up. That waste of power, made necessary by the impossibility of using transistors in the apparatus, he understood; but this other thing—

The experiment, originally, had been set up to explore some side-effects of magnet-rotation; a routine high-altitude project. Maurey and Sam had guessed that the government hoped to see some sort of antigravity come out of the new Blackett-Dirac theory of magnetism. Thus far, no such thing had appeared; instead—

He touched the key experimentally. Across the room, a large bell chimed pleasantly, though it was not in any way connected with the apparatus. Sam got up, took down the bell, and put up the regular target. The machine was behaving as always. Every erg of energy that went into it was metered; even the losses in metering were figured. And the amount of thrust that that invisible pulse shot at the target always equalled exactly the amount of power that the apparatus used.

There was no equivalent "recoil."

Suppose that apparent lack of feedback was real, as Maurey had suggested? Suppose that, for once, an action did *not* involve an equal and opposite reaction? Suppose that, for once, an object that was pushed *didn't push back*?

Of course the target pushed back, but that was secondary—*ex post facto*, as it were. He changed the metering set-up and started again. There was no gain in the amount of heat put out by the tubes when the device was "fired." The wiring didn't heat up, either. On a hunch, he made a free coil of the main power pack lead, made a foray next door to liberate a beaker of liquid air from the pressure lab, and dipped the coil in it.

THE TARGET burst the moment the key was closed. Excitedly Sam checked the target meter readings against the lowered resistance of the cold coil. It checked to the last decimal place. Nothing lost in resistance, then? The boiling of the liquid air hadn't speeded visibly when the pulse was launched, but the eye couldn't be trusted to detect such a thing. As a last check, he bottled the liquid air and the coil in a Dewar flask with a sensitive Rahm transducer for a cork. The transducer he rigged to a kymograph.

He fired the device four times. The steadily rising line on the kymograph drum showed not the slightest joggle from bottom to top. And since he'd already failed repeatedly to detect any radio or suboptical effects—

Newton's Third Law of Motion was a gone goose.

A math to describe it could wait; as a matter of fact it would be fairly simple to express it as a matrix discontinuity. What interested Sam now was a way of re-assembling the apparatus so that it would be portable. Even to his unpractical eye, the advantages of probability were evident. If a man could hold a thing like this in his hand,

and apply just as much push to an object as there was power available—if he could, for instance, convert a couple of thousand kilowatts into physical thrust against a heavy load—two or three men might lever a heavy locomotive out of a culvert—or—

The engineering of a compact projector was not difficult. All but two of the tubes could be replaced by a couple of 6V6's without much loss in efficiency, and the efficiency, and the loss could be expressed as heat and dissipated harmlessly by discharging the pulse from a flanged tube with a reflector behind it; the flanging might be charged, too, to make a focusing field, and the tube could be silver and act as a wave-guide—

In another hour, Sam had a thing that might have been a Twenty-First-Century cross-bow, without the bow. It was certainly awkward, but it worked. Sam sat in a window of the lab and knocked off the hats of passers-by until it got too dark outside to make the sport safe. Then he locked up and went back to the dorms, whistling tunelessly

A student of history might have known where to expect the missing black-blast; but Sam was only a scientist.

III

THE WINDOWS of the graduate lab in radiation were like the windows of every other college laboratory—big, inadequately puttied, and long unwashed. Maurey did not see the device on the bench until he had been in the lab for several minutes, for the sunlight was slanted the other way, and the main benchwork was only dimly lit in the daytime unless the sun was directly upon it.

When he did see it, he drew his breath in sharply. It took only a moment to check the leads, and to confirm that this was what had been yesterday only a confusion of tubes and spaghetti. Maurey looked it over carefully. What he saw raised his estimate of Sam by quite a few notches. Yesterday the generator of the one-way-push had taken up as much space as an ancient super-heterodyne radio; now it was all neatly assembled along a single axis, scarcely more difficult to handle than a shotgun, except for the leads.

Sam had given Maurey his weapon.

Maurey shut the door quietly and locked it. The discarded, empty Dewar flask told its own story. It also suggested something that Sam evidently had overlooked.

Maurey found Sam's free coil and made a receptacle for it, with clips to hold the Dewar flask under the silver barrel of the gun. He got his liquid air from the same source that Sam had; but instead of corking the flask, he soldered a conduit from it to a tiny, fan-driven booster-generator. Two flashlight batteries and a small transformer finished the job; he cast the power-lead free.

The device was completely portable now, and the first successful perpetual-motion machine in history—as long as the liquid air held out. In a heavy-duty, semi-portable projector, Maurey thought, some of the output could be diverted to run a compressor, completing the cycle. The prospect rather dazed him.

MAUREY took the projector with him, bundled into an innocuous lump in old newspapers. On the campus, students waved to him; even diploids. Maurey was well-liked; his air of mild, cosmopolitan amusement made him envied by the young; and among the college students there was an idealistic "equal rights for tetras" movement which Maurey had taken great care to further. The diploid kids loved Maurey, where they only respected the younger giants.

"Hi, Maurey. Watcha got?"

"Wet-pack," Maurey said. "How are you, June? Get over that squabble with the parents all right?"

"Yes, thanks to you. Are you coming to our meeting tonight?"

"I hope so. Don't wait up for me, though."

He tucked a flap of newspaper over the weapon, nodded to the girl, and turned down the gravel path. At the other end of the campus he saw another giant, but the distance was too great to see who it was. It was male, and that was all Maurey could determine. He had a sudden urge to run shouting toward the towering figure, to declare war at once upon all the scurrying pygmies, pick them off like clay pigeons with the invincible thing he had packed in newspapers under his arm—

Not yet. He went on, smiling to the diploid youngsters who worshipped him.

He realized that his own immediate plan was far from perfect. The most important thing had been to get the weapon out of the Radiology building, where the chances were good that anyone who found it might understand it—or understand enough of it to become dangerously curious.

Sam wouldn't trouble too much about its disappearance. He would assume that Maurey had taken it, and as soon as he found that to be true he would be satisfied. Dr. Fred, on the other hand, would "know" immediately that the thing was not a weapon, but some toy of the radiation labs; so probably the best place for it was in Dr. Fred's safe, at least until it could be delivered to Methfessel. Dr. Fred was almost fanatical about respecting the property rights of the giants. When he found the projector he would identify it as Maurey's and leave it alone.

All this was parlor psychology, based insecurely upon Maurey's estimate of the people involved, but it would have to do. The most important thing was to persuade Sam not to publish his findings. It would take some doing, for Sam, even more than the ordinary graduate student, depended upon his scientific reputation for his small income. A discovery as revolutionary as this might net him an assistant-professorship.

MAUREY was mildly surprised to find Dr. Fred's lab empty. The old man rarely went out these days; he held the rank of Professor Emeritus, hence had no class-

es to teach, and spent most of his waking hours (which meant twenty out of every twenty-four) making microtone sections, fixing, staining, mounting, sketching, and filing the thousands of tissue specimens necessary to any experiment in polyploidy. Evidently he was taking one of his unpredictable four-hour naps.

Well, that was all to the good. Maurey knelt before the safe. One of the sloppy human abilities tetraploidy had sharpened for Maurey was hearing: the muscles of his middle ear were as sensitive as those of the pupils of his eyes, and could reduce the vibrating surface of his eardrum to a taut spot no bigger than a pinhead when he was listening intently. He could hear sounds from 4 cycles to 30,000, and do it selectively; his mind had recorded the tiny tinkle of tumblers almost automatically the first time Dr. Fred had opened that safe.

The door swung open, and Maurey sniffed with annoyance. Here was a problem he hadn't anticipated. The safe was full of papers. More than full; it was stuffed. Two of the three top pigeonholes were taken up by slide-boxes, the third by the familiar cardboard mailing tubes in which paracolchicine ampules

came into the lab; but the rest of the safe was packed with note-paper, graph-paper, drawing-paper, photomicrographs, letters, thin pamphlets with long titles, file-cards, and what seemed to be a thousand shiny black booklets of silicone-treated lens-paper. A sizable proportion of the mess sagged chummily into Maurey's lap the moment the safe door moved back.

HE SWORE. From a box under the table something sneezed in answer, and Decibelle stuck her nose out and regarded Maurey with reproachful brown eyes, her eyebrows going up and down independently.

"Go to sleep, pooch. Damn. What am I going to do with—"

He realized that he was talking to himself and stopped. As a preliminary measure, he took all the papers out and made four piles of them on the table. Obviously the stuff had been jammed into the safe in no particular order, so it would do no harm to redistribute it in some way which would be more economical of space. Probably the best way would be to stack according to size, all the films in one pile, all the notes in another, the publications in another, and so on, and then a repack—

Maurey's hand, turning over a crumpled letter-size sheet, paused in mid-air. After a long moment it continued the arrested motion, laying the sheet with meticulous care upon the proper pile. Maurey picked up the sheet that had been under it.

CARLIN, SENA

HYATT

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Sex-linked double-diploid with marked tetraploidy; cf. chromosome charts 2, 3, 6, 8, 9, 10, 14, 15, 18, 21, 22, 24. Heavy crossing-over on diploid chromosomes. Triploid x-chromosome. Somatically an apparent normal tetraploid individual with only slight schisming...

IT WAS NO news of course, that Sena had Hyatt blood in her; most of the older giants did; only the youngest generation had had to suffer by the court order forbidding Dr. Fred to contribute germ cells to the polyploidy experiments.

But what the hell was *double-diploidy*? Two two was four, any fool knew that. Yet Dr. Fred must have some reason for calling Sena a "double-diploid" instead of

a tetraploid. And that reference to "schisming"—the awkward word was deliberate, an avoidance of "schizoid" or any other term that might have referred to Sena's psychology; that sentence began with the crucial term "somatically."

Maurey was not a geneticist, but he knew his own background, and he was used to scientific shorthand. There was only one interpretation possible. Some of the twenty-four chromosome pairs which carried the human inheritance, and which should have been given Sena in double measure, had not doubled—had not *been* doubled, deliberately, for the placid failure of Dr. Fred's record to evince surprise betrayed foreplanning. Many of those that had doubled were still acting as sets-of-pairs rather than as groups-of-four—and of those, many had exhibited the peculiar gene-shuffling phenomenon called "crossing-over," so that their genetic effects would not be traceable for generations except by the laborious process of chromosome-mapping, and even then only by someone who knew the fundamental secret Dr. Fred had written on this page.

Maurey fingered the sore spot on his ear-lobe, the place from which Dr. Fred took his

periodic biopsies, as he took them from all his "children." The spot stung to the salty perspiration on his fingertips, and his whole body was shaking with fury and frustration.

The tetraploids were not the end of the story.

THERE WAS another form to come. Sena was the beginning of that line—and there was no telling where it might lead, no telling how thoroughly the children of Dr. Fred's tectogenesis might antiquate the giants. Sena looked like a tetraploid—but her children would be—

What might Sena's children be, if she were allowed to have them?

The pupy said "Urrgmph" and hit the floor on one shoulder. She waddled over to Maurey and fell over on her back, requiring that her tummy be scratched; her tiny pink paps offering promise of thousands and thousands of triploid puppies to follow her—

Or, perhaps, tetraploid puppies, with sex-linked double-diploid characteristics hidden within them, to surprise their antiquated tetraploid masters...

With a growl Maurey snatched up the projector. The Brobdingnagian puppy, her chunky body all unknow-

ingly the germ of Maurey's plan for the triumph of the giants, and the symbol of his and their defeat, rolled over and crouched, laying back her ears. The force-beam struck the stone floor at her side and pitched her across the room. She got up, barking excitedly, rump high, front paws spread. This time the reflected beam caught her directly under the chin. She screamed and brought up against the far wall.

Maurey laughed and turned the reflector to spread the beam. The puppy regained her courage and charged him, and Maurey broomed her back against the wall again. *Supersede the tetras, eh? We'll see which weapon can be drawn the fastest!* He tumbled the dog this way and that, herded her into the wastebasket, rolled the basket across the floor, overturning it, tumbled the yelping animal scrambling into a corner and out again—

"Maurice!"

Trembling, Maurey let go of the plunger. After a moment his eyes came into focus amid a haze of scalding tears.

IT WAS Dr. Fred. Of course; no one else called him Maurice. The geneticist stood in the doorway. The dog whimpered and crawled toward him, her eyes darting

back to Maurey in puzzlement.

"Maurice, what—I heard the poor puppy a block away. What is that thing? Are you trying to kill her? And you've got my safe open! Have you lost your mind?"

Carefully, his fingernails digging into his palms, Maurey said, "I wasn't hurting her, Dr. Fred. It was just a game—she was having as much fun as I was." He realized that he was holding the silver muzzle of history's deadliest weapon directly in line with Dr. Fred's stomach, lowered it with enforced casualness, and laughed. That laugh came hard. "Admittedly she sounds like she's being murdered, she's so damned big—"

Dr. Fred strode past him while he was still talking and bent over the stacked papers on the table. "Why did you open my safe?"

Maurey gave him the prepared theorem. The rangy old man grumbled, almost like the puppy. "I can see that," he interrupted. "Who gave you the combination?"

Nothing would be more suitable here than the truth, Maurey decided. Dr. Fred would be interested, probably diverted, by the sharpened talent, and in any event it would be unsafe to tell him that some other person had

given out the combination. He might trace the story.

"Really?" Dr. Fred said.

He riffled through the papers until he found Maurey's dossier and pawed for the accompanying chromosome charts. "I wish you'd told me before," he said petulantly. The charts apparently were mislaid. "Did you shuffle—no, no, they were an awful hodgepodge before, I know. I really need a secretary, but they're all so bubble-headed. Come see me next Wednesday, will you, Maurice? I want to see if I can trace that auditory acuteness. I *do* wish you'd told me before."

"I just noticed it myself a little while ago," Maurey said. His mind was now completely at ease, but his body was trembling; it was an inevitable reaction and it did not bother him.

Still it would be a millennial day when the giants need no longer play-act with Dr. Fred—

And it would have to be soon.

THE NEEDLE, hung by its points, swung back and forth before the window with the regularity of a metronome. As it passed the central pane, Dr. Fred stabbed the waxed end of a thread into its eye and jerked it out

again. Back and forth. In and out.

After a while he was satisfied that his nerves were all right. He was mad clean through, and he was too old to risk such strong emotions; every hypothalamic disturbance impaired his coordination upon which microdissections and chromosome manipulations depended.

He bent to examine the dog, who had lain her chin across his shoe-zipper. She seemed to be all right; Maurice's "toy," whatever it had been, hadn't hurt her, though certainly it had scared her. Dr. Fred wondered what it was. Something electrical, by the look of it. In the old days sadistic kids had shot ammonia into dogs' eyes with water-pistols. Nowadays they hitched the poor beasts to spark coils or something even more elaborate; but in the end it was just the ancient tin-can torture. It didn't even make any difference whether the kids were tetraploid or just ordinary diploid kids; they satisfied their power-fantasies with equivalent cruelties.

He stood up, correcting himself. It *did* make a difference, of course. The giants, even the best of them, had to live in a world which was actively and pointedly hostile; the diploids, except for some

few—if much publicized—minorities, had only the general wastefulness of nature against them. Earthquakes hate nobody; but the diploids—

THE DIPLOIDS hated the giants, as well as each other, and had the means to implement it. The psychology of that hatred was obscure; field tests had tended to show that the obvious sources of diploid jealousy—the longevity and the almost incredible physical toughness of the giants—aroused only the most remote, the most intellectualized dislikes; the thalamic disturbances, the hatred that really chewed into the guts, was directed toward the tetra's size first of all, and then toward the makeshift social systems their near-sterility had forced them to contrive. Subconsciously, perhaps, the average diploid wanted to be a giant, and felt himself frustrated; yet—let his children be tetras? Never; no advantage could compensate for the stigma of being so different.

And there were stories of another sort, springing up out of the oppressive sense of sexual inadequacy the giant women aroused, aided in their circulation by the limited fertility of the tetraploid organism. *You know what they*

say about their women? Freemartins, that's what. A fellow I know told me...one of a thousand scabrous jokes. Also, there was a predatory type of woman—not always unmarried—for whom the tetraploid men were natural prey. There were jokes about that, too.

THE EMOTIONAL disturbances among the giants were becoming more and more pronounced as the pressures increased. This tormenting of a harmless puppy was the most upsetting phenomenon yet. It had done more than shock him; it had shaken the very basis of his plan for the giants, as a temblor worries the foundations of an old and solid house.

The swinging needle slowed gradually, its path turning with the Earth's rotation while Dr. Fred pondered; at last it hit the window glass and twisted to a stop. The tinny impact reminded him of why he had put it up there. That shock, that moment when he had seen Maurice's beautifully-balanced mind wobbling toward paranoia, had frightened him more than he liked to admit. It had been reassuring to find that it had not troubled the neuromuscular coordination which was his stock in trade.

But the essential, the ideational shock remained. If the best intelligence among the giants was inclining already toward the easy excuse of persecution, if it had already tipped far enough to fall into the compensation of sadism, then the plan for the tetras which Dr. Fred had evolved was too long-term to work.

It was that realization which had reduced him to talking like a senile old man, like a soap-opera doctor, before Maurice, in order to conceal his fear. It had been pure foolishness to pretend that Maurice had disturbed the order of the papers. Nothing went into the safe which had not been culled too thoroughly to require the dim-brained expedients of mechanical filing. He hoped that the giant hadn't noticed; he'd seemed mighty upset himself—a mildly hopeful sign up to a point. Of course a sense of guilt has a threshold; at a certain level of intensity it begins to confirm the habit-pattern rather than inhibit it—

But Maurice had been sorting the papers, too. And Maurice, though he were as mad as the Hatter, was the most alert of all the tetras. He might have seen Sena's papers, and understood them.

He would have understood them had he seen them. And

he would have understood, then, some of the ingredients of the time-bomb Dr. Fred had planted beneath giants and diploids alike.

MAURICE would not be able, now, to await the explosion. He would be perfectly ready to kill Dr. Fred to snuff it out—

Except that killing Dr. Fred would not snuff it out. There was only one death which would de-fuse that bomb. Dr. Fred spread the documents out over the table with a broad sweep of both hands. The code symbols relating to Sena leaped out to his eyes; he snatched the fascicles out of the fan and rifled through them. Chromatin records—molecular film analyses—genealogical summary—

The somatic record was gone.

Whatever might come of actual genetic mutations, the type theorists called cataclysmic, there was implicit in Sena the final flowering of the possibilities of *Homo sapiens*. Those possibilities were all implicit in her somatic record, the first full-length portrait of humanity-to-come. And report and possibilities alike were in the hands of Goliath of the Philistines—a giant, and—

A madman.

Dr. Fred considered the tears flowing along the creases beside his nose with bitterly academic interest.

IV.

WETHFESSEL closed the locker-room door, shot the bolt, and pointed across the low-ceilinged room. The gesture was unnecessary; the golden battle uniforms compelled attention in the drab cement enclosure like a fanfare of clarions. There was one suit hanging in each dull-green locker, tenantless, yet perfect and beautiful with a life of its own.

Maurey strode to the nearest one and examined it with admiration. This basic part of the armor was a heavy breast-plate, hinged to close over chest and back like the carapace and plastron of a turtle. At the bottom of the plate was a brief metal skirt of overlapping leaves, serving as both guard and belt; a control box, mounting a single large red master button and four small black ones, was placed to hang over the left hip of the wearer, and on the right was a holster of plastic straps. The gun in that holster was in some respects like the first projector of the one-way-push—but compressed, trimmed, bal-

anced into a proper side-arm.

"No cold-flask?" Maurey said, hefting the gun. "I see there's an input lead to the control box there; that'll make it a bit awkward to manipulate."

"You couldn't prove it by me," Methfessel said, shrugging. "I sent your figures and the prints to Kelland and he designed this stuff. I wouldn't know a cold-flask from a hot rock."

Maurey grunted and put the pistol back into the webbing. He was none too sure that he approved of the whole idea of a force-pistol, anyhow; it seemed a trifle overt. Maybe a lance would have been better after all. But the thing was done.

Anyhow, the real wonder of the armor was the thing which hung poised on the back-plate, like an eagle spread to abduct a lamb. In some respects it resembled a comic-strip "flying belt"—which it was—but it was elaborately feathered with delicate flanges, tilted to apply the one-way push over the greatest possible area without at the same time materially increasing the air-resistance, and so seemed to have more "futuristic" superfluous ornament than anything ever drawn by Dick Calkins.

MAUREY was confident that the device did not have a nonfunctioning square inch, whatever its appearance. Every other flange broadcast the reactionless energy; the alternate flanges picked it up and turned it into mechanical motion. Warping fields, designed to waste controlled portions of the energy as the dove wings of the archaic *Taube* monoplane wasted flying speed, did away with any need for direct methods of steering; they were actuated by movements of the wearer's body. The device had no moving parts, but it would steer with great delicacy.

Finally, there was a helmet, or more exactly, a casque. It was linked electrically with the flight mechanism and with the force pistol; Maurey could not decide at once what it was for—his sketch had called for a fishbowl. This was topped by a short spike, flanged as if to bleed off heat or some other kind of waste radiation, but that seemed to be purely decorative. It was a true Buck Rogers touch, jarringly out of key with the known superbly functional design of the rest.

"What's that?"

"For protection," Ira said. "I don't know why. Maybe you're supposed to ram the opposition. I don't know any-

thing about this kind of thing, Maurey."

"Kendall didn't say how it 'protected'?"

"Not to me. It's called a 'transcaster' on the prints."

There seemed no present answer to that puzzle. It would take a thorough examination of the circuits to decide why Kendall had put that little Christmas tree on top of the casque. Maurey suspected that the reason would turn out to be as exciting as the rest of the apparatus; the armor was a work of genius; it was a good thing, considering the amount of understanding it evinced, that Kendall was a giant and from Maurey's point of view a dumb giant at that.

"What gets me," Ira said in an aggrieved tone, "is that the guy didn't allow any protection for the legs or arms. I'd of thought he'd design a complete body-armor while he was about it—like our football uniforms."

"He must have had a reason," Maury said abstractedly. "By the way, did Sam Ettinger come to see you yet?"

"That's the bird that walked off the field when Hammy was hurt. Yeah.* I took him back in, like you said; but I don't mind telling you I don't trust him. He's a malcontent."

MAUREY smiled crookedly. "I don't know any well-adjusted tetras, Ira," he said.

"That's not what I mean. He's what we used to call 'disaffected' in the Last Last War. Too full of ideas of his own to follow orders. Oh, well, you're calling it."

"Either way, you make money," Maurey pointed out. "Which reminds me: make me out a check for twenty-five thousand."

"What the hell for?"

"I want you to buy the dormitory grounds where we're living, and that's the price the university set."

"Think again," Ira said flatly. "What do I want with those firetraps? I'll need all the cash I've got to enlarge the stadium."

"You'll make the money back at the first tournament," Maurey declared. "And as long as the university is housing the giants, it's got entirely too much say about what they do. Don't you realize that it'll be sure to prohibit the tournaments as soon as the word leaks through? Then you'd be in a nice mess."

Methfessel thought about it. It was obvious that he was aware of Maurey's additional reasons without knowing what they were; but where money was involved, he was

unlikely to ask for a second reason unless the first one seemed insufficient.

"I've got to act as if you knew what you're doing," he said finally. He pulled out his checkbook. "Here. Just be sure you spend it all in the same place."

DR. FRED b'ew his cork. "I don't understand you any more, Maurice," he stormed, pacing back and bench. "This is far and away the most highhanded thing I ever heard of. The university's relations with that promoter already are quite dubious enough—this modern system of semi-professional handling of college sports is vicious, in my opinion I should have supposed a research project like ours, at least, to have been immune to such exploitation, yet here you are actually encouraging it—and what's more, turning us all over to a commercial scheme like so many potatoes!"

"Nothing of the sort, Dr. Fred," Maurey said patiently. "I didn't make the offer, and I didn't accept it; the only choice I had was to refuse to act as the go-between, in which case somebody else would have been found. I agree with you that the gap between the University and Ira Methfessel isn't wide enough by several miles, but

I chose simply to be realistic about it.

"As for the tournaments, I take exactly the opposite view (nor were they my idea either, by the way.) They give us an opportunity to make a living, and quite a good one, without being dependent upon University charity, and that's something we've all needed a long time for the sake of our self-respect. Granted that it's not a very dignified living, but we're in no position to be so choosy."

DR. FRED stopped his pacing and looked steadily at the lounging giant over the tops of his glasses. "You haven't said anything yet that I don't think a half-truth or a plain fantasy," he said. "I'll pass your curious conception of 'realistic' behavior; that kind of expediency is no novelty to the world, heaven knows. For the rest—evidently you think that by making the tetraploid project over into a business venture you weaken Methfessel's direct hold on University affairs. That's a half-truth; the other side of the coin is that at the same time you've ruined the University's reputation more thoroughly than could any possible relationship with professional sports. Twenty-five thousand dollars! What

can the Board have been thinking of? They might just as well have sold the whole chemistry department, students included, to Columbian Pharmaceuticals across the river!

"No, don't interrupt, Maurice. That's only the beginning. I suppose you realize also that this terminates the tetraploid research as far as I can be concerned. Now that the giants are living on privately-owned property, they will have to be treated like any other graduate assistant or scholarship student. The social aspects of the study go out the window, nor will I have any authority to direct or in any other way interfere with the genetic course of the experiment. I'm left with nothing but a group of volunteers."

He snorted. "Volunteers! No wonder the so-called 'social sciences' were a bust! 'Will one or two atoms of oxygen kindly step forward and answer a few carefully impersonal questions?'"

Maurey started to speak, then halted before his lips had parted. Best to let the old man talk it all out.

"What the reaction of the public will be to this I don't know, but it's bound to be bad," Dr. Fred went on, a little more quietly. "I can only hope that it won't be

extreme. You've expelled your brothers into the status *private citizen*, and you're going to find that that's a much more dangerous and humiliating status than the one you had before, the one the public equated with that of experimental animals. No, your motives may be good, Maurice—though I shan't say I believe it—but good or bad your actions have been despicable."

DR. FRED turned his back on Maurey abruptly and stared out the smudged window.

"I rather expected some such reaction," Maurey said evenly, "but I certainly didn't anticipate so much violence. It's unlike you to use such loaded terms, Dr. Fred. The mere fact of a change of ownership of some property is not going to change your relationship to us in the least. The tetras all owe their existence and their biological advantages to you, and they won't forget it. They'll still be exactly where they were before; the fact that that bit of land can't be called 'campus' any more changes nothing on the event-level.

"They'll still come to you and cooperate with you in your experiments. They'll look to you for guidance as

before. Your anathemas on 'volunteers' do nothing but hide the fact that we were always volunteers; you never did have any dictatorship over our personal lives, nor did you ever try to exercise any—not until now—so it seems foolish in you to complain that any real control has been taken away from you. What you had before, you had now."

"Yes, yes, Maurice," Dr. Fred said wearily. He did not turn. "I am not as unaware of the difference between real meaning and formal meaning as you'd have me think. Your speech tells me, for instance, what you see: a feeble old man querulous over the intervention of cold reality between himself and his pet hobby. I withdraw my implied accusation of bad faith, which I had no right to state; but I believe you are as aware as I am that what you have done will have evil consequences, for the giants, Maurice—not for me, but for the giants. Incidentally, what did you want Sena's somatic record for?"

"I didn't want it. Am I supposed to have it? And what has it to do with what we're talking about, anyhow?"

"I would very much like to

know," Dr. Fred said. "However your course plainly does not include me, so I shan't pursue the matter. You may as well go, Maurice. You can't undo what you've done in any case, nor can I expect to talk you out of whatever it is you're planning. But I will tell you this: Your sanity is dubious."

"I'll go," Maurey said. "Since we've reached the wild-accusation stage already, the matter is closed. Goodbye, Dr. Fred."

HE CLOSED the door with precision and went down the squeaky old wooden stairs. On the whole, though he was a little angry—that couldn't be helped—he was well satisfied with the way the interview had gone. Most of the giants, he was sure, would be glad to be out from under the fatherly eye of the University; they would come to Dr. Fred, of course, and find the old man accusing Maurey of some heinous plot the details of which he would not be able to give.

The end-product would be a strengthening of his own already considerable influence (since, although he would deny engineering the transfer, the impression of himself as prime mover would

remain) and an abrupt slump in Dr. Fred's prestige. Of course, Dr. Fred might not react as predicted, but in view of his present performance that danger was small, and in a few days it would no longer matter what he said or did.

He stood for a moment on the stone porch of the building, looking over the campus. It was late in the afternoon; probably Sena and Sam would eat at the student cafeteria. For a moment he was prompted to let the matter wait until tomorrow, but then thought better of it—providing properly for the future entailed so many unpleasant tasks that were each one postponed only a single day the future would never arrive at all.

He drove the roader over to Sena's dorm, left a note for her, and then proceeded to the men's dormitory, where he let himself into Sam's room with a passkey. Sam's typewriter had a half-finished letter in it, but its content was uninteresting. Maurey selected a book and made himself comfortable.

SENA ARRIVED first. She was somewhat flushed. "I got a terrible ragging from some of the kids on the first floor," she said. "Are you

sure it's all right for me to be here, Maurey?"

"Quite sure, my dear. I'll explain as soon as Sam arrives. I must warn you that the situation's rather complex—and not without its unpleasant aspects."

"Really? How ominous!" Sena sat down on the edge of Sam's cot, raising her eyebrows in mild alarm. "Can't you—oh, that sounds like Sam now."

Maurey's supernormal hearing had already detected Sam humming under his breath at the foot of the stairwell. When he entered, the black-haired giant's surprise was comical. "What are you trying to do, you two, get me thrown out?" he demanded, half-seriously. "After I went back to Maurey's crazy football team? There's gratitude for you!"

Maurey grinned and explained what had happened.

"So this is a private apartment now, Sam, and you can have a woman in it if you like."

"I like," Sam said immediately. Sena smiled.

"I thought you would. But there's a hitch. I knew that as soon as you heard the news, you and Sena would want to follow through on your commitment—your housing problem is already practically a legend; so I

wanted to talk to you both, and try and persuade you not to do it."

"Not to do it?" they said together. Sena leaned forward. "What do you mean, Maurey?"

"Sena, how much do you know about yourself—about your genetic makeup, that is?"

"Why, not a great deal," she admitted, frowning. "About what we all know about ourselves. I know who my parents were, and that one of them was related to Dr. Fred, and I know the theory of chromosome-doubling."

"That's what I thought. Do you know any more, Sam?"

"About myself?"

"No," Maurey said. "Sena."

Sam shook his head, patently mystified. Maurey paused a moment. He realized that he liked Sam, and he wondered if it were really necessary to be so brutal. The two kids loved each other; wouldn't it be enough to persuade them not to have a child?

H E REALIZED at once that the suggestion would be just as badly received as his earlier one. The near-sterility of the giants had made birth-control close to a crime among them; and besides, what if there should be an accident? A tremor of

pure terror made him catch his breath.

"I hate to say this, but it's got to be said," he declared. "Sena, I've seen your records; Dr. Fred showed them to me. And you're *not a tetraploid.*"

Sena went white, and one hand flew to her throat. "I'm—not?" she said faintly.

"I'm afraid not. Essentially—forgive me, both of you, but this thing transcends all of us—essentially you're diploid. Your size is tectogenetic in origin. You were given that one characteristic by direct manipulation—one of Dr. Fred's famous micro-operations on the genes. If you and Sam have a child, it will be triploid. Like Decibelle."

"Are you sure, Maurey?" Sam said slowly. "Why would Dr. Fred pull a trick like that? He told me that the dog was strictly an experiment, and that he hadn't gotten around to testing triploidy in humans."

"And so he hasn't. But when Sena's child is born, there's his test. As for why—well, naturally, scientific curiosity must have been one reason. He had to provide a diploid human being to mate with a tetraploid, so naturally he had to supply one of practicable size."

THERE WAS a brief silence. At last Sam said,

"Maurey, I'm sorry, but I can't swallow that. Dr. Fred's not underhanded; he would have told Sena, and when he knew who Sena was going to live with, he would have told him, too. In this case, me."

"That's right," Sena agreed. "You must have misunderstood him, Maurey. After all you're not a geneticist, even though you are our biggest brain."

Maurey shook his head. "There was no reason for him to tell anybody. You've seen for yourself what a Blue Ox that dog is; would you have known it for a triploid if Dr. Fred hadn't told you? Of course you wouldn't; and your child would look like a tetra, too, just as Sena looks like one."

"But the reason, Maurey, the reason!"

"I can't be sure," Maurey said. "But Dr. Fred's an old man, and he doesn't think as straight as he used to. When I objected to this whole business he turned on me in a white rage—I was flabbergasted, let me tell you. The first thing I wanted to know was why he couldn't have implanted tetraploid germ cells in a diploid woman, artificially, instead of creating all this incipient heartbreak. That was when he lost his temper, so I never did get any answer."

"However, it's my guess

that he doesn't think the tetras to have been a successful experiment, and so he's planting ringers among us. Sena is almost surely not the only one. In a few generations we'll be cut back down to diploid size again—we'll *be* diploids—without ever knowing exactly how or why it happened. And nobody will try the experiment again—because by that time the existing laws against further chromosome-doubling in human beings will be given a full set of teeth. Hell, I'm not even sure *I'm* not a phony—you can imagine what a shock this was to me. I think I can claim to know just how you both feel. But, there it is."

SAM SWORE and sat down abruptly, feeling for the arm of his desk chair with the gesture of a man gone suddenly weak in the knees. Sena was blinking, unsuccessfully trying to squeeze back tears. Maurey felt simultaneously like a louse and like a composer whose sonata has just been afforded an ovation.

"Of course it's hard to take, damned hard. I don't ask you to bolt it down whole, or expect you to; as Sena says, I might have misinterpreted what I saw; that might just possibly account

for Dr. Fred's being so angry with me. I'd be delighted to be proven wrong, believe me. One of you ought to check me."

"I'll talk to him," Sam said. "I can't quite see you telling us this if it isn't so, Maurey, but of course we'll have to be sure you haven't gone off half-cocked." His voice wavered dubiously as he reached the end of the sentence. "Damnation! We'd really be out in the cold if it's true."

"Life is aye full of cark and cauld," Sena said. The attempt to be cheerful was pitifully futile. "I won't get any man, big or little, if I am just a phony. But Maurey, I'm nearly forty years old, and I was just getting out of an awful ten-year adolescence when I was twenty-eight. Doesn't that disprove your theory?"

"I wish it did," Maurey said somberly. "But unfortunately it doesn't prove anything either way. You'd have to be long-lived in order to seem like a tetra, so Dr. Fred might have given you that characteristic too, for the purposes of the masquerade. Or you might be a true tetra, and I've caused all this fuss for nothing. I can only say that I wouldn't have opened my mouth if I hadn't been close to positive about it. All

I want to know now is this: do you agree with me that, if it *is* true, Sena should not—should not bear any children?"

"No," Sam said. His voice was gravelly. "For all we know, Dr. Fred might be right: the tetras might have turned out to be an unsuccessful experiment. I'm convinced that you mean well, Maurey, but I won't commit us to anything until I've checked."

"Fair enough," Maurey agreed, rising. He was glad that Sam had chosen to be stubborn; it banished the last traces of that momentary regret. Sam was thoroughly likable, but in this chess-game no piece was indispensable.

"Check," Maurey said.

V

BY THE next day the story somehow had become common stock among the giants, though Sam was reluctant to believe that Maurey had been circulating it in advance of conclusive evidence. Possibly some part, if not all, of the discussion in the dorm had been overheard—voices had a way of leaking out under doors, and the cement stairwell made a passable whispering gallery; nor could any tetra be condemned for eavesdropping upon a matter of such in-

timite and personal importance to all of them.

At first the reactions varied widely. There was flat incredulity—

"Sam, who's mad at Sena? Somebody's spreading the gawdamndest fairy tale!"

and reluctant sympathy—

"Tough luck, Sam—if must be pretty rough on you, too," as well as immediate chauvinism—

"Good thing you found out in time, eh, old man?"

There was also a startling amount of covert hostility: some of the giants went out of their way to avoid the embarrassment, or the humiliation, of speaking to Sam.

It was still worse to find that a few of the giants had not shucked off the predatory vices of the diploids with their size. Several of them, Sena reported, seemed to have concluded that Sena needed "consolation" and would therefore be easy pickings. This shameful reminder of a common, ignoble ancestry troubled Sam most, although he could not say quite why he found it so ominous.

And nothing could be done about it. Dr. Fred was out of town, attending a world congress of geneticists in Toronto. As the month went by, Sena's presumptive diploidy receded gradually as *the* sub-

ject of conversation among the giants, and was replaced by a gathering excitement over the new private-citizen status and the Paying Job. There was also a good deal of speculation over a possible revival of the tournament idea, though neither Methfessel nor Maurey had mentioned it in over a month.

UNDERNEATH all this Sam saw the reactions to his and Sena's problem begin to divide and flow away from one another in two definite streams. The unbelievers and the sympathizers showed a tendency to merge into a common camp of support for the outcasts; while the chauvinists, the suspicious, and the rejected wolves clumped together elsewhere, more slowly, like blood-cells in an antagonistic serum.

Even grimmer portents were visible to Sam, whose deep personal involvement had sensitized him to the slightest signs of new trends. The division among the giants began to express itself in terms of the two teams on which they were now earning their living.

Tetras sympathetic to Sam and Sena, naturally enough, predominated in the Titans, where Sam played. As a result, the members of the minority faction began drifting

over to the Atlanteans—where the same phenomenon was taking place in reverse. Methfessel, who now managed both teams, did not attempt to block the exchanges; indeed, Sam suspected him of encouraging it.

Certainly it was to Methfessel's advantage, for it brought the rivalry between the two teams—heretofore only a desultory, token rivalry at best—to a state of real acrimony, and the games became rough almost to the point of viciousness. The crowds loved it. The games always had partaken of the spirit of a mass gladiatorial contest—a spirit which is entirely a function of the temper of the spectators, not of what specific game is being played on the field—and now the players were accommodating themselves to that mood. The gate increased at once; the stands were packed for almost every game.

And the percentage of on-the-field injuries increased enormously.

BEFORE Dr. Fred came back, it was already too late to scotch the schisming of these two camps even with any statement that there was nothing to Maurey's soft denunciation. Something had happened—Sam could not find out what—which had

blighted Dr. Fred's authority among the tetras; they spoke of him in a way they had never spoken before, in a tone which regardless of the words had contempt beneath it. Sam tried all day to reach him, but Sam's own rigid schedule was in the way; he reached the scientist at last, by phone, at four in the afternoon just before a field trip, and then the old man evaded Sam's necessarily cautious questions and asked to see him at once, which was impossible. Sam had to settle for an appointment at 6:00 A.M. of the next day.

He thought of spending part of the penultimate evening with Sena, but knew at once that it would be the worst move he could make. Their situation was already dismal enough, without their sitting for two or three hours staring miserably at each other trying to find something to say, or proffering each other comfort where there was as yet no rational reassurance to be had.

He called her, and told her of the appointment. Her quiet understanding made him feel a little better, but a moment later he was doubly aware of how desperate he had become. He was already grasping at the smallest straw.

Being alone in his room was even worse. He could not

concentrate upon his technical books for more than three minutes without becoming conscious all over again of the all-gone feeling in the pit of his stomach, and the troubles of fictional characters filled him with a furious impatience: Emma Bovary had enthralled him for years, but now she seemed like a fool who had invented troubles in the absence of any real ones. At midnight he had enough, and threw himself out of his room without stopping to lock the door or put out the goose-neck desk-lamp.

THE LONG, aimless walk through the dim campus brought him finally to the edge of the river. He sat down on the steep-sloping bank and began to chuck stones into the black water. Each stone distorted the reflections of the lights of Columbian Pharmaceuticals on the other side, turning them into cold wriggling flames. After a great while he stopped throwing rocks and just sat, hugging his knees. The circling of his own thoughts numbed him, and the images on the water writhed hypnotically without any help....

Across the water there was a shrill, mournful hooting. He blinked and sat himself up

straight, feeling cramped and emotionally washed out. The hoot, he realized slowly, was the plant whistle, calling in the third of the firm's staggered shifts. That made it 4:00 A.M. His watch confirmed it.

Might as well walk slowly over to the Genetics building and wait for Dr. Fred to arrive. The wait would be tedious now that he was more awake, but some time could be killed by cutting through town and picking up breakfast at an all-night beanery. Unfortunately, he was not hungry. He climbed the sandy bank and began to walk, favoring his stiff muscles.

It was already dawn by the time he came in sight of the building. No one was stirring. It seemed a shame that such a peace ever should be broken, spurious though it was. He went up the broad river of steps, paused, and went inside, where it was warmer; he was chilled through.

THE DOOR of Dr. Fred's lab was ajar. Before Sam touched it he could see that the safe was standing open. Papers were tumbled out of it in a frozen cascade. His stomach-muscles knotted.

A robbery? But what did

Dr. Fred have that anyone would want to steal?

He felt the answer searing its way up toward the surface of his mind. Anything was better than having to face it. He lunged through the door.

His first impulse after that was to run headlong back the way he had come and throw himself into the dawn-bloody river.

Dr. Fred was tumbled grotesquely on the boards, half under the workbench. His cheek and shoulder rested in a sticky black pool. In spite of his twisted position, it was easy to see that his entire rib-cage had been smashed in by some single, unimaginable blow.

Decibelle growled; then, recognizing Sam, she lifted her chin from the dead man's shoe. Whining softly, she began to crawl toward him on her belly. Sam bent abstractedly and put out a trembling hand toward the dog, but his eyes had already found the weapon and could not leave it.

It lay shattered in the farthest corner of the room, the one that was always darkest during the work-day. Now it was directly in the merciless early sunlight; and, despite its almost total breakage, he recognized it.

He had made it.

It was the projector of the one-way push.

ALL BUT a small percentage of Americans live out their lives without ever coming closer to murder than the daily tabloid can bring them, though magazine fiction and video confer a spurious intimacy with the subject. Sam was no exception. To say that he was overwhelmed with horror and fear is to say nothing, for, although true, the phrases did not correspond with the feeling: the emotions he suffered were horror and fear, but they were entirely unlike any emotions he had ever before associated with those words.

He realized that he should be doing something, but nothing occurred to him that was not wildly irrelevant. He simply squatted, absurdly scratching the half-grown dog and trying to think—not a rational thought, but just any thought at all. His whole mind was fragmented. Perhaps the most terrifying thing still was that instant searing flash he had felt at the moment he had first seen the body, that stab of *guilt*. Traces of it still remained, unexpungeable by mere certainty that he was innocent.

Partly, of course, the guilty feeling had come from an un-

derlying consciousness of being in a bad position. Dr. Fred had been murdered while Sam was sitting by the river, alone, unable to account for his time; he had left his room light on, which would look like an amateur's attempt to establish an alibi; and a motive could be shown, a motive stronger than many a one which had hanged accused men before.

But the sensation had been stronger than simple fear. It had had all the flavor of confiction, of a compulsive self-knowledge: "I did it." It had brought out the buried guilt of the out-group, of the man on the defensive, the man whose real guilt is that of being different from his fellows.

All these fragments fluttered confusedly inside his skull for over two seconds. His first formulated thought was: Would a statistical study of the neurotics who run to the cops with "confessions" of every publicized crime show a predominance of minority-group members?

THE QUESTION was so remote from any "proper" reaction to murder—as such reactions were taught in the video school—that he could scarcely smother an hysterical giggle. But it freed him. He found that he could think

again, with at least passable coherence. He gave the huge puppy a final pat and stood up.

It would be at best futile, at worst damning, to sneak out and let someone else discover the pitiful corpse. He was fairly saddled with it, and the real killer had planned nothing else; this much had to be accepted at the beginning. Sam knew that he could not hope to outplan such a man from a standing start. He would have to consolidate his position within the frame of a probable death-cell.

He had one advantage. The killer could not have anticipated that Sam would find the murder out at dawn, unless he had tapped Dr. Fred's wire and had so learned of the early-morning appointment. That would require vigilance of an order which Sam was convinced was impossible for anyone who needed to pretend to a "normal" schedule at the same time. Probably it had not even been planned that Sam himself should discover the body—accident had given Sam nearly the worst possible set of circumstances, but accidents cannot be planned; the crime had been expected to speak for itself, in Sam's absence. The killer, in short, could hardly have expected that Sam would be able to in-

vestigate before anyone else.

It would be half an hour at the least, Sam estimated, before the first assistant professor or instructor would enter the building, and at least an hour before the first undergraduate would be seeking Dr. Fred's lab and advice. Fifteen minutes should be enough to examine the sludge of papers before the open safe, and the opportunity justified almost any risk.

SAM PULLED the sleeve of his jacket down over his left hand and slid open the drawer where the gynecological equipment was kept. The rubber gloves were there, all right, but they were dulled by a thin film of dusting starch. Anything he touched with those would be marked. Yet he could not afford a fingerprint; he had never before touched Dr. Fred's records, and it would be important to leave no evidence that he had.

Again he decided in favor of the lesser risk. Use of the gloves would show, but it would not point, except to suggest that there might be fingerprints inside the tips of the gloves. He wished the forthcoming fingerprint experts joy of that problem, for without stopping to think he could name fourteen people

who had worn those gloves within the past month alone.

He used the gloves and put them back in the drawer. Sena's entire dossier was missing; so were those of Kelland, Hammy, Maurey, and Sam himself. In addition, random sections of other dossiers were, in his own fervent cliché, conspicuous by their absence. The names of the giants involved made a group in Sam's mind, but he could not quite label the group as yet, and he gave over trying for the moment. The absence of the papers on Sena's and his own case was conclusive enough for his own purposes, since it enabled him to name to himself the name he had been crowding out of his consciousness up until now: Maurice St. George.

Maurey, the chief god of all the stumbling Olympians Dr. Fred had produced, had rewarded his maker.

SAM COULD appreciate the subtlety of the planting even better after that conclusion. The apparent crudity of the frameup—for instance, the abandonment of the unique, easily ticketable weapon—would seem to rule out Maurey at once. Maurey had done more than implicate Sam: he had staged the

scene to suggest a clumsy attempt to *fake* a frameup. Sam felt an iron-cold certainty that Maurey's efforts would not go to waste. Maurey never did anything incompletely.

Was there anything more? Yes—the dog. There was the one remaining factor visible to Sam upon which no plan could count. Maurey could not have dared to kill the dog, since it was known among the giants that Decibelle did not like Maurey; furthermore, Maurey was unsentimental, and would not have thought of the dog except in terms of telltale torn trousers. Instead, Sam surmised, he had worked quickly, well above the level of the animal's understanding until it was far too late; and had then left, before Decibelle had confirmed Dr. Fred's death or the fact of a quarrel. Very probably there had been no quarrel, but only an unexpected silent blast from the projector, a crash of equipment, a heavy impact, footsteps receding in the creaking stairwell—and a frightened, an abruptly and puzzledly lonely dog.

But the dog was not stupid. It was not in any sense an ordinary dog. Maurey had gotten away without being attacked, but there were now some matters about which no doubt could exist in Deci-

belle's slow but inexorably direct mind.

"Decibelle," Sam murmured. "Hey-pup. Where's Sena? Where is she? Where's Sena?"

Decibelle looked up.

"Hey-pup. Hey Decibelle. Where's Sena? Find Sena.

The repetition told. The dog, her ears still drooping, looked toward the door, and then back at Sam. "Go find her. Go on. Go find Sena."

DECIBELLE thought about it, blinking her bloodshot eyes alternately and rather upsettingly. Then she stood up, or almost stood up, and crept back toward Dr. Fred.

"No, no. I'm here, puppy. I'll take care of Dr. Fred. Don't you worry. Leave it to Sam. Get Sena. Come-on, Decibelle, find Sena. Hey-now. That's a good pup. Go to Sena. Go find Sena."

The immense animal looked back at Sam.

"That's it, Decibelle. Sam's here. Go to Sena. Come-on, Decibelle. Find Sena. Tell Sena about Maurey. You're a good girl, you did your job. Now tell Sena."

At the word "Maurey," the hair along the dog's spine coarsened. By the time Sam had come to his final order, Decibelle's back looked like a scrubbing-brush. Her claws

ticking on the boards, she moved reluctantly toward the door.

"Hurry, Decibelle. That's it, that's it. Find Sena! Quick pup! Go get Sena!"

Suddenly, it took. The dog growled, softly, a sound as ragged and ugly for all its distance as the encounter of a buzzsaw with rusty metal. Instantly and without transition the great beast bayed, bayed enormous and bloody murder, and lunged out and down the stairs. The belling cry burst forth onto the campus and receded on the fresh morning air.

Sam listened to the dimming clamor for a moment. Then he swabbed his forehead with his wilted handkerchief and picked up D., Fred's phone.

"Get me the police."

VI.

THE CIVIL Freedoms Association met in the cellar of the Romance Languages house, in a moderately luxurious, cedar-panelled room which, though quite small, was usually far too large for the group. Tonight, however, the attendance had turned out to be so large that the cellar clubroom was an impossibility. As the room became more jammed and the air still bluer with smoke, June looked more and

more worried, and Maurey, despite himself, more and more contented. Finally the meeting was adjourned upstairs to the building's largest classroom.

The reason, to nobody's surprise, was a turnout in force of the tetras themselves—the diploid membership of the equal-rights bloc had never been more than tiny. The crisis over Sam's killing of Dr. Fred had made a general conference unavoidable; and Maurey had agreed, reluctantly, with June that the giants' strongest diploid supporters should add their small encouragement. There were also a few policemen, supposedly there to protect so large a gathering of giants and fellow-travellers from being mobbed by a possibly outraged citizenry; their number was small, but their publicity value was enormous. (This suggestion, too, June had thought her own.) The presence of the cops, in turn, made newspaper reporters inevitable.

The formal opening of the meeting was considerably delayed while Maurey waited for the last possible giant to appear. The rest of the tetras—mostly of the Titan faction—twisted in their seats, like high school students crowded under fourth-graders' desks by a building shortage, and

muttered to each other. The INS reporter, who had also to attend an anti-vivisectionists' conclave across town, interviewed Maurey briefly without seeming to listen very closely to his answers, and left.

Finally June caught Maurey's eye. He shrugged and moved his fingers away from his chest as if trundling some round object toward the edge of a table. June made a smart tattoo with the gavel.

"Friends, let's get to the business at hand," she said clearly above the thrum of talk. She looked extraordinarily young on the rostrum. "I won't call roll or fuss around with parliamentarianisms tonight—this meeting is too important and we're starting rather late. I'm going to ask our large confreres to sit quiet a little while longer while we hear from Tom Drobinski. Tom's editor of the *Dunhill Campus Echo*, the head of our public relations committee; I think he can tell us something about what the public temper is like right now. Shoot, Tom."

DROBINSKI, a swarthy sophomore journalism major with a cranial structure that would have thrown a frog into convulsions of jealousy, stood up and said rap-

idly: "You've all seen most of the papers so I won't go into detail on that. Briefly, they're all taking the same line, except the *Worker*, which hasn't taken any notice at all yet, and the *Times*, which made a fairly successful try at being impartial.

"We haven't any facilities for monitoring, but the videocasts I've seen myself all played up the parricide angle, and used lots of myth-faking and crude dream symbols—heavy emphasis on mystery, hazy gigantic figures, Biblical references to 'giants in the earth,' the kind of thing that makes people feel alarmed without knowing why. On the whole I think everybody, but everybody, thinks Ettinger is guilty, except for some of the leftist columnists who *know* he's guilty but sort of wish he weren't—some kind of identification-reaction there but I'm not analyst enough to make it very clear."

"Give us a sample, Tommy," one of the diploids said.

"Well, Bax Ferner has a long, quasi-Freudian chew in tonight's *Weathervane*, hinting that big people are just naturally murderous because nobody loves them, but that it's black Fascism to single them out. But that's on the side. I saw a mess of news service dispatches from the

capitol just before I came here. One of the state senators is going to put a resolution on the floor tomorrow to have the tetra colony taken under state supervision now that the university's sold its jurisdiction—"

"But Tommy, that must be illegal!"

"No it isn't," Drobinski said. "The laws relating to Indian reservations haven't been needed for seventy years, but they're still on the books. That's only the beginning: there's another resolution being drafted to register all the tetrads with the Habitual Offenders Monitor, give them numbers, make them show wallet cards to new employers, and all that. And there's going to be a lot more trouble tomorrow—Ira Methfessel has just announced a big tournament of some kind, evidently the one that all the rumors have been about, and the stadium boxoffice claims that people are already climbing all over each other to get tickets."

HE STOPPED speaking as if he had been turned off, and sat down. Then his voice shot forth again from among the seats, startlingly. "We're about two days away from Pasadena, I'd say," he declared with flat clarity. "Only this time—"

"June, may I chip in?" The deep, gentle voice came into the tense silence like a benison. June smiled.

"We have to think about Sam right now," the speaker said from the back of the room. "Maurey, do you think he has a prayer of getting a fair trial?"

"Yes and no," Maurey said, rising. "Obviously there'll be political bias; it'll be impossible to pick a jury that won't already be largely anti-tetra, emotionally. Is that what you mean, Kelland?"

"Just that."

"Well, I see nothing that we can do about it. Except for that factor, I expect the trial to be scrupulously fair. Naturally, we'll have to get ourselves a good lawyer, as brilliant a man as our pooled resources can afford. I'm sure Methfessel will let us have an advance on the gate for the tournament if he's properly approached—"

There was a racket on the floor. The center of the disturbance was another giant, an Atlantean, who was now standing and shouting. Since there were four other giants shouting at him, Maurey, and each other at the same time, nothing coherent came through. June added the crack of the gavel to the din, which subsided promptly.

"What were you hollering, Briggs?"

"THAT IT'S ridiculous to talk about doing anything for Sam Ettinger," Briggs said hotly. "What he's done makes him as vicious an enemy of ours as the kept press. If we band together behind him, the public will identify us with him. What we should do is draft a resolution condemning the murder, and demanding quick, merciless justice; pass it unanimously, and give it to the reporters."

"That's the stuff to give the troops," an excitable diploid crowed.

"I have nothing against mercy myself," Maurey said mildly. "And neither one resolution nor twenty is going to speed up justice any faster than the law will let it go."

"The words don't matter; the important thing is to disassociate ourselves from Ettinger."

"Throw out the Jonah," Kelland suggested. Briggs failed to take the remark as a criticism, or even to place the metaphor.

"Exactly; throw him to the wolves," he growled, deporting the seafaring Jonah to a droshky with a single stroke. "He's earned it. What he's done is untetraploid. He's a —a Pasadentist."

"What was done was bad," Maurey said, unruffled. "But we have absolutely no proof that Sam did it. He designed the weapon that was used, to the best of my knowledge, but I myself put the weapon into Dr. Fred's safe, and there's no direct evidence that Sam got it out again, or that he even knew the combination."

"I'm not sure he designed that gadget," Kelland interrupted. "I've worked on things of that type myself, from knowledge you gave me, Maurey."

There was a flurry of scribbling among the reporters. Maurey frowned warningly, but Kelland plunged on. "You have my drawings and could have built a projector yourself to my design. Hell, Maurey, nobody even knows whether or not the gadget really was the murder weapon. A young male giant could easily crush a frail old man's chest in an identical fashion with the back of a shovel, in one swipe. The projector could have been a blind."

MAUREY could feel himself helplessly going white-lipped. Since he could not control the reaction, he would have to account for it before some dangerous construction was put upon it. The easiest and quickest way was to take offense.

"Pardon me, Kelland," he said, "but it's a good thing I know you well and know you're a blunt and sometimes blundering sort of guy socially. Otherwise I might have to lose my temper. Everything you say is true, but it could also be taken to add up to an accusation—of murder. Not a very wise thing to do in public."

"I'm sorry," Kelland said at once. "I had no intention of accusing you. I simply wanted to point out that Briggs is hanging Sam well in advance of any proof that he's done anything wrong."

"The point," Maurey said, "is well taken, if badly put. What about that, Briggs?"

Briggs' opinion was succinct but unprintable. "I demand a vote," he added.

"On what?"

"On whether or not we denounce Ettinger. What else?"

"Will you go along with the decision if it goes against you?" Maurey asked curiously.

"Sure; what do you take me for? *Whatever* we do, it ought to be unanimous. You're asking so many questions, let me ask you one: who do you think murdered Dr. Fred?"

"It's not my function to decide that," Maurey said, making each word tell. "However, Briggs, I seriously

doubt that any tetra would have raised a hand against the old man, whatever the fancied or real provocation. If we do decide to help defend Sam, part of our effort ought to go also toward looking elsewhere."

THERE HAD been a murmuring of side-chatter all through the meeting, a murmur of private debates whose participants could not afford more than one ear to the discussion. Now, as the iron in Maurey's speech began to bite deeper, the room became more and more quiet, until at last there was an unearthly silence. The reporters bent intently over their notebooks, and Maurey could see the headlines being conceived:

LUMMOXES HINT
NON-GIANT SLEW
DR. HYATT; THREAT-
EN VENDETTA

But he wanted those headlines to surprise the tetrads, so he did not dare let the silence persist long enough for full comprehension to set in. "June," he said, "would you tear up some paper and pass out the fragments? If you favor hiring a lawyer for Sam, friends, write 'Yes.' If the 'No' slips predominate, we'll entertain a new motion."

But, of course, the Yesses won. There were two 'No'

votes. One was Maurey's own, cast to break up Briggs' suicidal ideal of unanimity; Briggs himself had agreed to cast the other one, and Maurey was more than glad of the foreplanning. He had not anticipated such a landslide.

He announced the results. The reporters broke for the door. Maurey looked at Briggs, who shrugged. The shrug was a genuine artistic stroke; Briggs would become a great actor in the new world, Maurey thought, if he lived to see it.

Maurey was in honest doubt as to whether or not he should.

SAM HAD found with dull astonishment what every newly-imprisoned man finds: that after only a brief isolation from his own world, he could no longer understand the news. He read through the local paper's lead-story account of the "conference of war" with the conviction that none of the tetrads whose names were attached to the quotations could have said anything like that; yet, as a whole, the story hung together.

There was a great deal more that was puzzling. Methfessel had announced his tournament—there was a half-page ad for it in the sports section, and half the

editorial copy in the section was devoted to it. Methfessel's ad made very little sense:

"SEE Titans in Deadly Combat! SEE Flying Shock Troops Clash in Mid-Air! SEE Affairs of Honor *FOUGHT TO THE FINISH* with SWORDS OF FIRE! Towering Heroes contend for the favors of Gorgeous Giantesses with strange Weapons *never before used on any battlefield!* Champions in armor—mass charges—futuristic warfare—blazing color, beauty, spectacle! **THE EVENT OF A LIFETIME!**" And more, proving nothing that Sam could see but that Barnum was not dead after all.

The sportswriters were generally hostile, or, at the least, sarcastic, but appeared to have little better idea of what Methfessel actually planned than Sam could deduce. Certainly the propaganda hardly suggested mailed knights on brewery horses, despite the medieval trappings of the ad-writer's copy. On the editorial page, the newspaper's proprietors took a dim view of the whole business, suggesting darkly that there was something frivolous—in another century the editorial might have said "worldly"—in the giants' staging a circus when their

whole existence was a matter of the gravest concern among right-thinking normal human beings. Like most editorialists, however, the writer seemed to fear standing too strongly on one side of the fence, despite not having to sign his name; for the editorial wound up with a foggily hopeful remark about people putting their best feet forward. Perhaps this was intended to pass for impartiality.

THE SMALLER stories about the crime itself were a little more comprehensible. Sena, who had been held as a material witness, had been released upon a stiff bail which Maurey had put up (Sam had been unable to speak to her). The paper had a "human interest" interview with her, which wavered nervously between straight sob-sister treatment and a tendency to acidulousness. There was no mention of the dog, for which Sam was grateful no matter what it meant.

The trial date was already set, a two-column italic head announced. A box on page 12 contained an irrelevant datum about Sam's university post, evidently supposed to be funny. There was a column of fuzzily learned speculation about the weapon,

written by the man who usually did the paper's "Little Walks With Nature"—Maurey had declined to explain the mechanism except before the grand jury, on the grounds that there was a patent pending on the principle which publication of details would prejudice. Finally, there was a meandering roundup yarn dealing with official reactions to the murder, including the news of Sam's dismissal from the graduate faculty, and a comment from the state's governor which promised prompt punishment for "provocative acts."

All of which was alarming without being in the least enlightening. What most irritated Sam—his strongest emotion now, for it was impossible to sustain an intense consciousness of personal danger continuously for a week—was his being cast, at this point, for the role of the Impotent Husband in a bad videocast. The stage was all set for the Big Think, wherein the male lead was to take a long walk or be shut up in a room until he Came-to-Realize, with his own voice squawking at him through a filter (representing Thoughts) to a background of treacly organ-music.

The irritation, of course, sprang from the fact that a

Big Think was by this time a commodity for which Sam had no use. He had Come-to-Realize a week ago, in a split second, without benefit of *vox humana tremulo*. Sam's thinking was often slow, but his conclusions none the less sound for being belated. He knew, he was certain, the name of Dr. Fred's murderer, and he knew in general what Maurey's purpose was: to widen the gap between giants and diploids by every subtle means, and to provoke an eventual break in which Pasadena would happen again *in the opposite direction*.

SAM HAD been blind to the implications of the one-way-push as a weapon, but his was a type of mind that saw things at once upon demonstration. Jolted into thinking of the phenomenon in military terms, half a dozen expedients occurred to him—side-arms, pressor fields, an anti-missile field—any one of which he could have designed with a minimum of experimentation. From this point of view Maurey's apparently suicidal program appeared in a different and much grimmer light, and reminded Sam that a hundred men who knew the basic uses of explosives could have taken over the Roman Empire by direct frontal attack.

Maurey had called the tournaments a blind for his moon colonization project. It was interesting to see what understanding could come out of standing Maurey's statements on their heads. Maurey had never had the faintest interest in the moon, as Sam knew he should have seen at once. On the other hand, it was now clear that the tournaments were essential—that they were nothing less than training grounds for a tetraploid militia, for training in a new and terrifying armamentarium.

But it was in the matter of the "phony" tetraploidy that Maurey's massive intelligence had shone most brilliantly. Sam had a sickening hunch that there actually was something amiss in Sena's genetic background, but Maurey's moves made sense all down the line even if one assumed that the whole "phony" story had been pure invention. The accusation had invalidated Sam out of any participation in anti-diploid politics, a field where Maurey could not afford to trust him, first by giving Sam something more immediate to worry about, and second by providing the other giants with grounds for distrusting Sam.

The murder followed logically. It stowed Sam safely away physically, as the

"phony" story had already isolated him politically; and at the same time it multiplied anti-diploid feeling marvelously by making martyrs of both victim and accused. Finally, the records which had been taken from the safe had been selected with perfect cunning to suggest that the very tetras least likely to go along with Maurey were also "phony" in their genetic makeup—and that Maurey himself might belong to that group, which made *him* look like an altruist.

IT HAD BEEN well done. Sam, lying full length on the cell bunk with his arms folded under his head and his feet on the cold floor, was surprised to find in himself an impersonal streak which found it all admirable. None of his deductions had thrown him into the expectable fury against Maurey. The renegade giant, in Sam's limited vocabulary, simply had no morals.

He was neither mad nor bad, but only a direct-actionist. He was a social outcast, like all the tetras, but he was unlike them in following exile into its last ditch—that murky declivity where there is no such thing as bad means. Maurey would not even excuse bad means by a good end, for Maurey would con-

sider a bad end worth no means at all.

This trait in Maurey, Sam had seen often in the laboratory, usually with the result that Gordian knots fell asunder with magical suddenness. Early in the study of the one-way push, Sam had resisted a suggested line of inquiry on the grounds that it was mathematically ridiculous. His chief had said, "Are you going or staying, Sam? Math is just rationalization after the deed. If you're going, go, and let the explanations wait; if you don't want to go, then stay home, but don't complain that the goal you've abandoned doesn't show on the map. If you decide to stay home, you don't care what the map shows. The place you want to go to always exists, even if it's marked 'Terra Incognita' or 'Here Are Dragons.'"

MAUREY was admirable. Nevertheless, living as a human being demanded a constant fight for protection against his logical kind. Sam had personal objections to mangling the lives of others for any end; and the same impersonality that allowed him to admire Maurey's clarity and brilliance made him ruthless against the ends Maurey sought. It would make him equally ruthless against Mau-

rey himself, when the time came.

Sam had hardly a noticeable fraction of Maurey's intricacy, but he was sure that time was coming.

There were footsteps outside, and Sam propped himself up on one elbow. The guards had brought his dinner. By diploid standards they were tough and chunky animals, as formidable as bears—but then by diploid standards the bars of Sam's cell were impassable, while against Sam they had to be electrified.

The guards put Sam's tray on the floor before the door and backed off to either side, retrieving their shotguns. Both of them looked up, their faces lit by the bulb which, Sam had decided, showed whether the current was on or off; then the glow vanished from their stubbly chops and they looked down again. "Come and get it, lummo."

Sam got up and bent to pull the tray under the bars. As usual, the meal was heavy, more than double the ration for the biggest possible diploid, and so nearly double what Sam needed. Like all the giants, his katabolic rate was very slow, and a high proportion of what he ate served him as fuel rather than as material for the building

of new cells. Evidently the prison authorities had assumed that he'd been returning half his meals uneaten because he'd been too nervous to clean the plates.

It was only one more sign that the people who had the best reasons to be concerned with the problem of the tetraploids had not made the smallest effort to learn the available facts about them, though all the facts had been available for half a century.

THE GUARDS watched, waiting for the light to come on again. They were stupid, but not unfriendly, despite the gingerly way in which they had to approach him. One of them said, "Heard the news?"

"I saw the morning paper," Sam said, denuding a chopbone. "Something's come up since?"

"The gov'nor's put the kibosh on the big show you guys were going to stage," the guard said. "Says it might cause a riot. What was it goin' t' be like, anyhow? Was you rilly goin' t' fly through the air an' all that?"

"I wish I knew," Sam said. "I got clapped in here before I heard more than rumor or two. Methfessel seems to have changed his plans since then."

"It's a damn dirty trick, if

you ast me," the other guard said. The light came on, and they lowered their guns and came a little closer to the door. "I bought tickets for the wife and kids—two bucks a throw for seats 'way up in th' bleachers. This Methfessel goin' t' give refunds or rainchecks?"

"Oh, sure," Sam said. "He'd have to. He's been running the sports for the university up to now—I'm pretty sure he's honest."

"Well, the family's goin' t' be pitched off about missin' it, all the same."

"You was lucky," the first guard grumbled. "They wasn't no tickets when I got t' the box-office. I got mine from a scalper at ten rocks a throw. One buck seats, too. I'm gonna lose nine apiece on 'em, an' a couple the other boys is in the same fix. If I had this Methfessel I'd take it outa his hide—but I guess it ain't his fault, neither. It ain't as if I had money t' burn."

"TOUGH," Sam said sincerely. "As far as I'm concerned, I don't think Methfessel had any business announcing the tournament to begin with. He should have known it'd just have made more trouble."

"Yeah," the guard said, rather automatically, since it had been obvious that he

hadn't been listening. "Looked like it was goin' to be good, too. Every onct in a wile we could see one of the big guys shootin' up above the stadium an' down agin like a freakin' eagle—"

"You could see—"

"Just accidental," the guard said hastily. "Not that we was peekin'. We paid our money fair an' square, so why should we of peeked?"

"Oh, I didn't mean that," Sam said. But it was impossible to admit what he had meant by his interjection—he was almost afraid to think about it in public. His appetite extinguished suddenly, he put his tray back on the floor and slid it out. The guards shrugging at his sudden reticence, took it up and went off.

Sam sat still on the narrow bunk, chill and stunned. So the talk about flying in Methfessel's ad hadn't been just hyperbole! Evidently Maurey, perhaps with help, had developed the one-way push into a sort of—well, a sort of boot-strap for self-lifting purposes. Of course it was now easy to see how such a thing could be designed—but Sam hadn't seen it before, all the same. Evidently he needed the Big Think much more than he'd been ready to believe.

Sam thought conscientiously.

AFTER HE was through thinking, he was still sitting on the bunk. This flat fact could not be thought away; it was the most important thing he had to think about. If Maurey had any sort of flying equipment—and even a "flying belt" was not unthinkable—he would without doubt stage some sort of melodramatic rescue raid on the prison where Sam was held.

Sam found that pill hard to swallow, but he swallowed it. The subtleties of amoral persons, of "expedient" politics, invariably wound up in just such cataclysmic crudities if they were pushed far enough along the line of their own logic, and Maurey was exactly the man to push that far. Maurey was a genius in most respects, but his ability to boggle at the verge of disaster was slightly below that of a lemming.

And no amount of thinking would turn up any more logical specific step than that of a raid on the jail. No other percussion-cap for a show-down-by-force with the diploids could be expected to crop up for some years longer than Maurey's patience would last. All Maurey's plans pointed to exactly that—in-

deed they were ultimately explicable only in terms of that intent and no other. If Sam were freed, Maurey would have to think of something else; but Sam did not expect to be freed, nor acquitted—and to include the possibility of acquittal in his puzzling was to include nothing more than a hope that problems would solve themselves. Sam was too good a scientist to let that hope creep into his hypothesizing.

FACT: Sam was *inside* the jail. Knowing Maurey's plans with reasonable certainty did him no good whatsoadamnever.

The raid could only precipitate a massacre. In the confusion Sam would perhaps get away, and afterward he would have to be shown to the tetras who had freed him; that meant that he would not be killed treacherously under the guise of being done a favor. The chances were slightly less good for Sena—who would probably disappear—not to be killed at once, for if there were hidden in her any solution to the tetraploid problem, however disagreeable, Maurey would have to know it in its totality in order to combat it, as that same knowledge would be needed to make it work; but she would be taken out of circulation, and, eventually, elimi-

nated when Maurey became satisfied with what he knew.

IN THE face of all this, Sam knew himself to be nothing but a nailing male Cassandra. He could, if he chose, tell the truth of what was to come, but no one about would listen. His actions were just as constrained as his words. He would be tried; convicted; when Maurey's "rescue" force arrived, he would escape. To escape now, entirely aside from the fact that it could not be done, would make him the object of a merciless manhunt, which would turn into a pogrom before it was over—exactly as Maurey's raid would turn into a pogrom.

In both cases, there would remain some question as to who was supposed to be exterminating whom, until the very last poor dog was hung, and the remaining bloody noses counted.

FACT: Sam could not stop the raid. The situation had deteriorated to a point where the raid, no matter how mad it was bound to be, had to happen. No one could stop it, any more than the trial itself could be stopped. Event logic dictated it, and, too, dictated Sam's escape. After that—

After that, perhaps, Cassandra might step out of the play,

in favor of Orestes returned from exile. *Maybe*. There was no better answer yet. For now, Sam had only one function in the drama:

He sat and waited.

VII

SAM'S LAWYER was young, short of stature, and implacably cheerful. His name was Wlodzmierz, which is the kind of name newspapers never misspell (the Smiths are the unhappy cognomens which get ignored by the proofreader.) Wlodzmierz was chatting with reporters now, as had been his practice during the past three days toward the end of every recess, switching effortlessly into one or another of six different languages as needed.

The additional languages were always needed, for the world press had taken up the story of the trial, and legal observers from the International Court of Justice also were present. Wlodzmierz himself was a UN appointee who had presented his credentials to Maurey before Maurey had decided on a man in whom to invest the tetra's war-chest. Since the Pole was obviously better qualified than any possible lawyer Maurey could have hired, and

since in addition none of the tetras could afford to give away money where there was no need, Maurey had been forced to pass back the sums to the original contributors.

Whether or not Maurey had been happy about this unexpected turn remained an open question. He had not confided in Sam. The imprisoned giant suspected, however, that Maurey had accepted it as inevitable, and therefore not worth more than a mild swearword or two.

Even Sam himself had seen it coming, as soon as the Soviet UN delegation, still smarting from having been forced to return five acquittals in the Belgrade Trials, had suggested the possibility of "lynch law in the American giant case."

Even the American representative had had to admit that "some public prejudice might possibly affect the conduct of the trial." After that, though the way to be traversed had still been tortuous, a Wlodzmierz had been clearly visible at its end.

THE BAILIFF rapped, and the lawyer came back quickly to the defense table, smiling innocently at Sam.

"Anything new?" the giant said in a low voice. The law-

yer seated himself and leaned sidewise; always, when seated, he watched the bench and the witness chair steadfastly, never looking at Sam, but canting alarmingly whenever they had to speak.

"Not very much, I am afraid. I am beginning to feel that international intervention here has had a largely ugly effect upon the local populace, and such an attitude inevitably will filter through to the jury and perhaps even to the judge. A pity that we failed to get a change of venue to England."

"I wish you'd explain again why you tried that."

"A question of publicity purely, Sam. English law does not permit newspapers or television commentators to mention a criminal case until a decision has been handed down. Afterwards they may give complete accounts of the trial, and claim abuses of justice if they believe they have seen any, but beforehand, no. The UN's proposed World Code includes such a provision, but the United States and several other—" He dropped abruptly into the telegraphic pidgin he used while the court was actually in session. "No matter. Here's judge."

"Sena Hyatt Carlin!" the bailiff cried.

The audience stirred. This

was its first chance to look in person on the "Blond Princess" who had featured so largely in the tabloid accounts. Sena came to the stand confidently, was sworn in, turned and sat down with a concentrated grace. Her expression was clear, and a little cold—suggesting neither disgust nor contempt, but simply aloofness. Sam took a deep, quiet breath.

Both the aloofness and the confidence became more marked as she answered the preliminary questions. They came rapidly, and Sena answered them at the same pace, using the number of words proper to answer the questions as put, no more, no less, allowing the district attorney to establish her identity and her qualifications as a witness. In the same position Sam would have gone slowly, wary of possible traps in the first routine queries, but Sena did not appear to be afraid.

THE PROSECUTOR might have been impressed, if unwillingly, by her self-possession; in any event he set no traps. He said at last, "Now, Miss Carlin, is it true that Dr. Hyatt never informed you that you were not a tetraploid individual?"

"No."

"No, he did not?"

"No, it is not true," Sena said.

"Then he *did* so inform you?"

"No. He had no true information of that kind to give."

The D. A. smiled. "We'll let that pass for the moment. You have heard Dr. St. George's testimony—I refer to that part of his deposition in which a visit by him to the dormitory room of the accused is described. Is that description accurate, to the best of your knowledge?"

"Quite accurate," Sena said coldly.

"Did you, at the time of that conversation, believe that Dr. St. George might have been misleading you?"

"No, I didn't."

"Very good," the prosecutor said in succulent tones. "You considered, then, that there might be a real barrier, an impediment let us say, to your having children by the accused?"

For the first time Sena appeared to be slightly uncertain. "I suppose I did feel that way," she said at last. "For the most part, though, I was just—well, alarmed, and anxious to find out whether or not M—Dr. St. George was right."

"I will not protest that answer, but I must ask you in the future to confine yourself more closely to the question

proper," the D. A. said. "Prior to Dr. St. George's disclosure, however, you had planned to marry the accused; is that correct?"

Wlodzmierz snapped open like an automatic card table. "Objection."

THE JUDGE looked interestedly at the Pole, as one examines one's first fossil dinosaur egg. Wlodzmierz said, "My honorable opponent's question is so phrased as to open the question of the family system among the tetraploid people. Such material would be irrelevant and most certainly prejudicial."

"The prejudicial aspects are clear," the judge admitted, turning to the prosecutor. There was slight edge on his voice, and Sam was instantly convinced that the jury had been meant to notice it. "Mr. Sturm, are you prepared to defend the relevancy of the material?"

"No, your honor; my phrasing was fortuitous. I will withdraw the question and restate it."

Yeah, Sam thought glumly. Now that the jury has been reminded of what a loose-living crowd the lummoxes are anyhow—

"Yes, that's true," Sena was saying.

"Thank you. What was the reaction of the accused to Dr.

St. George's disclosure?"

"He didn't believe it," Sena said.

"Quite; but Dr. St. George has also said that the accused was angry. Was that your impression as well?"

"No," Sena said. "Anyhow, not exactly. Do you mean whether or not he seemed angry at Dr. Fred?"

The lawyer bowed ironically. "That is what I meant."

Sena shook her head. "He was upset, just as I was, but he couldn't be mad at Dr. Fred until he'd found out whether or not the story was true."

"Then he *would* have been angry had the victim told him the story was true?"

"That would depend on the explanation. If Sam was shown a good reason for such a deception, I'm sure he'd go along."

"This is, however, merely your estimate of the defendant's character."

"That is what you asked me for, Mr. Sturm."

"True. When did you first learn of the murder, Miss Carlin?"

"That morning; I think it was about seven o'clock."

STURM SMILED. "One hour after the accused's appointment with Dr. Hyatt, if I am not in error. And Mr. Ettinger notified you himself,

I believe? Can you remember his exact words?"

"The first thing he said?"

"That will do nicely."

"Yes," Sena said. "He said, 'Check, Sena'."

The D.A.'s smile turned magically into a scowl. "That's all?"

"Well, he said 'Goodbye,' too."

"Did you and Mr. Ettinger play much chess?"

"No. I don't know how, and I've never heard him mention playing himself."

"But I presume you knew what the accused meant by 'Check.'"

"I thought I knew."

"You're being rather stubborn, Miss Carlin. Must I ask you directly what your opinion is of the meaning of 'Check, Sena'? Very well, what is your opinion?"

"He meant to ask me to check the genetic aspects of Dr. St. George's allegation. He saw, of course, that he was sure to be arrested and in no position to check the matter further himself."

"Does it strike you that there are much simpler ways of interpreting the remark?"

Sam clutched Wlodzmierz by the elbow, but the lawyer shook his head.

"Under the circumstances, no."

"Then will you explain, please, how two enigmatic

words would suffice to inform you of a murder, unless it had been foreplanned in your presence?"

There was a long-drawn *a-a-a-a-h* in the courtroom, general but too soft for any but a conscientious judge to silence.

Sena said, "I already knew about the murder. Mr. Ettlinger sent for me and I saw the body before any words were spoken at all. After that not many words were needed."

"But surely he spoke words over the telephone?" Sturm said gently.

"He didn't telephone; he sent a friend."

"With what message?"

"No message."

"The friend simply appeared? Who was this friend?"

"Dr. Hyatt's dog."

THE ATTORNEY turned bright crimson in the space of a second. "Miss Carlin," he said in a tight voice, "are you asking this court to believe that Mr. Ettlinger managed to get you to come to Dr. Hyatt's laboratory merely by sending a dog after you? Or did he pin a tearful note to the dog's collar? Or was it, perhaps, a talking dog?"

"Which of your questions shall I answer?" Sena demanded angrily.

"None, Miss Carlin. None. I withdraw the questions. Mr. Wlodzmierz, your witness." The prosecutor made such a triumphal march to his table that Sam could almost hear strains of Meyerbeer in the stale air.

"One moment, Mr. Wlodzmierz," the judge said nervously. "You realize, I'm sure, that you may object to the final line of questioning before asking the witness, under American law? I am not suggesting that the prosecutor's questions were in any way improper, but I wish to be sure that you do not unknowingly forfeit any—"

"Thank you, your honor, but I have no objections to enter," Wlodzmierz said in a brisk voice. "I am pleased that my worthy opponent brought up this question of the dog, Miss Carlin. Rather than consume more court time bringing this information out piecemeal, I am going to make a brief statement about the dog myself; I shall then ask you whether or not the statement is correct, and if not, wherein it is in error."

"I object!" Sturm said hotly. "Your honor, surely the attorney of the accused is in no position to testify on behalf of a witness."

"He has a clear right to pose an hypothetical question," the judge said, "de-

pending upon its content, of course. Proceed, Mr. Wlodzmierzcz."

"**T**HANK YOU, your honor. Miss Carlin, this is my formulation:

"The dog in question is a giant dog. It is not a tetraploid, but closely related to the tetraploids, in a theoretical sense. As such, it is of abnormal intelligence, as well as of abnormal size. It was this dog, then, which awoke you shortly before seven on the morning of the murder—to use my learned friend's way of referring to a day during which no such murder may have occurred—"

"Objection!"

"Overruled," the judge said unhappily.

"But your honor, the grand jury returned a true bill of murder!"

"Mr. Wlodzmierzcz didn't question that. He questioned the day."

"—by entering your dormitory building, pushing your door open, and pulling the covers off your bed. We have testimony to show that this dog, this same dog, was seen and heard on the campus at this time, being very noisy; however, it made no sound while in the dormitory."

"Are you prepared to substantiate this in any other way than by the passive

agreement of the witness, Mr. Wlodzmierzcz?"

"**Y**ES, YOUR honor. We are prepared to bring the animal here, and to demonstrate that it can follow complex directions, understand situations involving as many as three variables, and exercise reasoning faculties in general which are slightly greater than those of a chimpanzee, particularly those faculties which might be termed integrative. I may go so far as to say that this dog is an important witness for the defense. In the meantime, however, I ask only that my statement be accepted as testimony from the *present* witness by virtue of whatever agreement she may vest in it."

"All right. Let's hear the rest."

"The rest is quickly told. Miss Carlin, you went with the dog to Dr. Hyatt's laboratory; she led you there. Once arrived, you found Mr. Ettinger and the body. Mr. Ettinger pointed to the spilled papers which have been mentioned before in this court, and said, 'Check, Sena.' You thereupon looked at all the papers during the next five minutes, and left that laboratory, with the dog. At this point let me ask you

whether or not I have stated the facts correctly."

"Quite correctly, Mr. Wlodziemierz."

"Good." Wlodziemierz darted with a sudden, sparrow-like movement to the defense table and returned, bearing a sheet of paper. "Your honor, I have here a sheet of paper of ordinary legal length. It is completely covered, as these warranted duplicates will show, by single-spaced, typewritten lines, ungrouped, which consist entirely of figures. We prepared this document in the hope of providing something which could not possibly be memorized in advance; Miss Carlin, in any event, has never seen it before. Will the prosecution allow us to show it to her for four seconds by stopwatch, in order to demonstrate that she is able to memorize it with complete accuracy in that time?"

"Well, Mr. Sturm?"

There was a good deal of mumbling, during which Sam was vaguely surprised to find himself in the throes of a chill of malarial violence. At last Sturm agreed to let Wlodziemierz proceed with the demonstration, providing that Sena would also memorize in four seconds two pages of the FAO rice-production tables for 1948, to be selected by Sturm.

SENA DID beautifully with both, muffing (as Wlodziemierz had before the trial insisted that she should) eight of the thousand figures in the prepared sheet, and throwing in a stumble over one word in a footnote on the FAO tables for good measure.

"We have arranged this demonstration, Your Honor," the Pole said, "in order to establish that Miss Carlin is capable of memorizing written information in great quantities, practically instantaneously. Miss Carlin, will you confirm?"

"I have what is often called an eidetic memory," Sena said composedly.

"And, Miss Carlin, did you so memorize the contents of Dr. Hyatt's papers while you were in the laboratory with the accused?"

"Yes, sir," Sena said. "There was plenty of time for that; I believe I went through them three times to make sure I had seen everything."

"Your Honor, these papers are in evidence. If the court or the defense so wishes, Miss Carlin is prepared to quote at length from any given page as a further check."

The judge looked at Sturm, who shook his head. Wlodziemierz said: "The reason why we have been at pains to establish this fact will appear in a moment. Now, Miss Car-

lin, I am going to ask you a very important question, and I want you to consider your answer most carefully. This is the question: Did you, or did you not, see anything in those papers relating to your presumed non-tetraploid status?"

"That's very easy, Mr. Wlodzmierec. I did."

"According to what you saw, are you a tetraploid individual?"

"No, sir."

THE CROWD murmured, but Wlodzmierec was not through. "Is the accused?"

"No, sir."

"Is Dr. St. George?"

"Objection!" Sturm said.

"Dr. George is not on trial. The question invades his right of privacy."

"Sustained," said the judge.

"Very well. Let me then ask you this, Miss Carlin: Of the entire colony of giants, how many, according to your information, are tetraploid individuals?"

"None," Sena said flatly.

There was a roar of incredulous amazement in the court. The judge made no attempt to control it. After it had died down, however, he said, "Mr. Wlodzmierec, almost I suspect you of provoking that statement sheerly for confusion's sake."

"Not guilty, Your Honor;

the testimony is extremely relevant. Miss Carlin, does the accused know this fact—that is, had he known it up to this moment?"

"No, sir, not to my knowledge. I believe no one knew it but Dr. Hyatt's personal assistants, and even among them it was customary to refer to us as 'tetras.'"

"Why was it?"

"Because it was convenient. Since every one of us has a different degree of polyploidy, and of a different kind, some over-all handle was needed. The only other choice would have been 'Polly.'"

"I see. What, in your opinion, is the source of the confusion?"

"In the use of the term 'diploid' for people of 'normal' genetic constitution. The 'normal' human being actually is a *tetraploid* individual, like the tomato and certain other—"

THIS TIME the judge did pound for order, looking both baffled and wrathful.

"—but the doubling of the chromosomes apparently happened millennia ago, so that geneticists customarily speak of redoubled humans as tetras because they've twice the normal number of chromosomes. Actually, of course, such an individual would be an oc-

toploid." She smiled. "Except that there are only two such individuals in our colony, we might have been nicknamed 'octopuses,' I suppose."

"Thank you. Your witness, Mr. Sturm."

Sturm got up. He seemed considerably shaken, but he advanced grimly upon Sena. "Miss Carlin, are you a geneticist?"

"No, sir."

"Have you ever had any training in genetics?"

"I have had one two-semester course."

"Did the late Dr. Hyatt personally tell you any part of the hypothesis you have just offered the court?"

"No, sir, as I told Mr. Włodzmierec."

"Have you checked any part of this hypothesis with the personal assistants of Dr. Hyatt whom you mentioned?"

"Briefly, Dr. Edwards agrees with it. Dr. Hammersmith was more cautious, and said only that it might easily be true."

"Did he state the reason for his caution?" Sturm asked drily. He was beginning to recover some of his composure.

"Yes, sir. He said that no one knows whether the 'normal' human being is tetraploid or not; that it was probable but that it hadn't been proven. He did add, however,

that he had often discussed the point with Dr. Hyatt, and that Dr. Hyatt maintained that his experiments with us, with the giants, were close to clinching it."

"We'll ask Drs. Edwards and Hammersmith to testify later. Will you state again whether or not the accused had any knowledge of this hypothesis?"

"I believe he did not," Sena repeated.

STURM nodded to the jury. "Then it could not have affected his conduct on the day of the murder?"

"No, I don't see how it could have."

"Now, about those papers. Were papers relating *directly* to you among them?"

"No, sir."

"Or to the accused or to Dr. St. George?"

"No, sir."

"Then you are unable to say exactly what your genetic status, Mr. Ettinger's, or Dr. St. George's might be; is that correct?"

"Quite correct."

Sturm straightened and said in a harsh voice, "Your Honor, the prosecution feels that further pursuit of this aspect of the case would be fruitless. The prosecution rests its case."

The judge looked at Sam's

counsel. "Mr. Wlodzmierzcz, has the defense any further witnesses to call?"

"Yes, Your Honor. We wish to bring the triploid dog Decibelle to the stand, demonstrate her intelligence by appropriate tests, and ask her certain questions, of a nature which, as shown by the tests, she is capable of answering."

Sturm shot back to his feet, gesticulating wildly, but the judge was ahead of him. "Mr. Wlodzmierzcz," he said in a gravelly voice, "this is an American court of justice, not a side-show or a music-hall. The court has permitted you to introduce certain facts concerning this dog, but neither human patience nor the dignity of the law can countenance introducing this animal as a witness. If you have any further *admissible* witnesses to call, please do so. If not, this court is in recess for today."

The summations took all the next day, but the jury stayed out only six minutes.

VIII

THE EFFECT of the verdict upon the public temper was astonishing, especially to Sam, whose knowledge of late Roman history was about as extensive as that of any other layman—in short, zero.

Up to the first day of the trial, the question of whether or not Sam was guilty had not been much debated. It had been assumed generally that he was guilty. The actual guilty verdict, however, seemed to open up a wide gap in the populace; suddenly, the air was charged with dissension.

The letter columns of newspapers were filled with communications of terrific virulence of language, each writer denouncing a previous one, and/or the stand of the paper itself. Fights over the subject in bars, sometimes involving all the customers, the barkeeps, the entertainers and the cops who came to restore order, became outright commonplace.

Clergymen unlucky enough to announce "Atlantean" opinions—which most of them held—in predominantly "Titan" parishes lost their posts. Video commentators of opposing views raked each other recklessly over the coals. The sports pages of the papers teemed with cartoons and columns about the controversy. Senators made "Titan" and "Atlantean" speeches to their constituents while campaigning — sometimes gauging the prevailing opinions in their constituencies with great inaccuracy. Slandrous denunciations became

too common to merit headlines any more, and "tetra" libel suits burst out with the frequency and violence of popcorn.

THE WHOLE complicated issue was further clouded by a heavy political coloration. For some reason, the general "Titan" viewpoint was adopted by most of the left-wing elements of the population, all the way from mildly prolabor groups to militant socialists; the conservatives, on the other hand, espoused the "Atlantean" point of view, which was not only anti-Sam, but, unlike the team for which it was named, was also anti-giants too. Embarrassingly enough, the remnants of the American Communist party also adopted the "Atlantean" creed, claiming that the giants were laboratory zombies created to further capitalist schemes of world domination.

This coloration carried the bitter quarrel all the way into the home. Sons and daughters ordinarily took the "progressive" Titan line, while their parents registered stiff Atlantean disapproval. The subject was complex enough to nurture family splits as rancorous and as final as the theological hairsplitting which had been the bane of other ages.

Most of these developments Sam had to deduce, not without amazement, from the papers brought to him in the death-cell. The first riot, however, he saw from the window of his own cell. A small labor union had arranged a "Free Sam Ettinger" demonstration just outside the prison, in response to the "Intern the Lummoxes" campaign which one of the yellower newspaper chains had been pushing. Similar demonstrations had already been held elsewhere in the city, all of them innocuous and, of course, ineffectual.

But this one was outside the prison. The governor, a Titan himself, but ridden at home by an Atlantean faction, was in a bad state of the jitters; he committed the tactical error of calling out the militia against the demonstrators.

MOST OF the marchers were skilled workers in an engineering trade involving considerable training; they were peaceable, intelligent men in their forties, who would no more have stormed a prison than they would have taken to piracy. The arrival of the state guard threw them into a state of high indignation. Furthermore, a mob of Atlantean factionists who had gathered to jeer

at their Titan enemies got in the way, were shoved aside, and promptly began to stone the militiamen for interfering with the right of free assembly.

After that, Sam could not keep the two groups sorted out. There were shots, and tear gas, and men carried off in ambulances, and windows broken. The whole riot moved off from the prison, disappearing into the city proper, getting louder as it went; and inside the prison, a siren was howling—not because there was, or had been, the slightest chance of a jailbreak, but simply because the warden had been unable to think of anything else to do.

All of which, Sam knew, was only a prelude to holocaust. He went back to his bunk and waited for it to happen...

It began with a soft, hornet-like droning, not somnolent and soothing like the burr of bees, but with a harsh black edge on it, part hiss and part snarl.

Sam heard the angry midnight sawing for some time before it became distinct enough to be marked. He got up again and went back to the window.

He was aware that the sound had been going on for some time, but up to now he

had not dissociated it from the rumble of the never-silent city. His heart and his breathing began to misbehave, and his mouth was very dry.

The future looked both short and violent from the black window. He had never, at any time, expected to be acquitted, but the court's refusal to allow Decibelle as a witness had killed the one real hope he and Wlodzmierec had had—the hope of implicating Maurey sufficiently to impede him. Wlodzmierec had known about the raid, but he had warned that only the dog could point definitely to Maurey as the real killer, and that Sam's own life hung from that probably inadmissible accusation.

That accusation—though neither Wlodzmierec nor any other non-giant could know it—could not have saved Sam's life; but it might have determined how usefully he died. Once it had been made, in public, Maurey would not have dared to engineer any coup.

A SMALL, black clot, granular like coal dust, was gliding out of the horizon along the dully-lit undersides of the clouds. The humming grew steadily. So did the clot.

Sam wondered desperately why the local Army base had not already been alerted.

Surely they had searchlights and anti-aircraft weapons there. And what was the matter with the Air Force's radar net? A few jets in the air now would make all the difference—

But no lights went up, there was no sound of planes; the city, exhausted by the riot, dulled by a vaguely soothing speech from the governor, snored. Belatedly, Sam realized that the humming sound was only just above the threshold of audibility — it sounded so enormously loud to him only because it had meaning for him. If only he had, after all, told Włodz-mierzc, the warden, the court, anyone, what he knew to be coming; someone, someone would have believed him, or have been alarmed enough to sleep badly, to straighten now in his bed and ask himself, *What's that?*

Perversely, now that he had conceived the hope of its being noticed, the humming dwindled in Sam's ears and blended back into the somnolent droning of the city. For long seconds at a time he was convinced that he could not hear it at all. Then—since it had not changed at all, except to come a little closer—it sprang back into being around his head like all the hornets of Hell's own ante-room.

THE GRAINS in the clot separated, became little black bacilli against the lurid culture-medium of the sky. The humming was now so heavy as to make Sam's eardrums flutter uncomfortably; he realized suddenly that it was too loud for the apparent distance of the swarm. Lights were coming on in the city, too, and somewhere deep in the prison there was a hoarse shout of alarm—not the shout of an official, but that of a trapped man whom doom approaches.

The humming swelled again, growing so suddenly almost to a roar that Sam ducked involuntarily. When he looked again, a swarm of clearly definable human figures, silhouetted inkily against the sky, was pouring over the prison—was pouring away from him, toward that other cloud which had come from the horizon.

A thin spear of monochromatic yellow light stabbed from the clenched fist of one of the near-hurling shadows. There was a flat crack, not nearly as sharp as the sound of a gun, but somehow reminiscent of thunder, all the same. Immediately, there was a fusillade of them.

The more distant, oncoming group responded at once. No sound could be heard from it, but the flying cloud was stip-

pled with yellow stars. At the same instant, Sam's eyes were filled with stone-dust, and a fearful blow across his skull, just above the left temple, slammed him reeling away from the window.

In the darkness, his head ringing, his gritty eyelids burning, the bitter truth drove in upon him. There were "Atlanteans" and "Titans" among the giants, too. Maurey obviously had whipped up a predominantly Titan group to staging a raid on the prison—but the Atlanteans, in surprising strength, had gotten there first.

A pitched battle, a civil war in the air, was already under way—and not just between giants and diploids, but between giant and giant.

HE STAYED away from the window, his eyes watering. He had no idea of the power of the version of the one-way push which the flying squads were using as a weapon—the gaudy spears of light, he deduced, were stig-mata of the adaptation of the principle to stadium use—but as its discoverer he knew already that it would be effective over any distance, limited only by the horizon. The accidental, random hit on the window, from some shot fired by the still-distant Titans,

had given him a more than adequate reminder of that.

Raging, he blinked away at the dust and watched the development of the New Pasadena from the far side of the cell, through an embrasure of the apparent size of a postage-stamp. The noise of the city was up a little, a drone-bass for the stuttering implorations of the giants' side-arms. A sudden wavering rib of light, appearing and disappearing in the field of the postage-stamp, told Sam that the airfield, at long last, had come awake, and was groping for the cause of the disturbance in the sky.

At once, a whole series of heavy impacts struck the near wall of the prison. The shouting of the invisible prisoner rose to a wail; then it was drowned out by the prison siren—apparently the siren was the warden's only answer to all problems. Another series of blows followed, battering the stone with a sound like the merciless hammering of age-split hollow logs.

The Titans were taking no chances. Now that the threat of discovery from below had become serious, they were not wasting shots upon their indistinct Atlantean brothers. They were bombarding the prison, an object which they had little to fear from the Atlantean attack except at very

close quarters—if both sides were using tournament weapons, they probably had effective armor against those weapons; Kelland would have been careful about a thing like that. The stone walls of the prison, on the other hand, would soften in a hurry under a reactionless bombardment.

THE SIRENS howled on, completely obliterating all sounds from outside. But the shocks against the outer wall could still be felt.

Then the corridor lights went out.

Sam spun and stared. A maddening square illusion, about the size of a postage stamp, floated in front of him wherever he looked. It took a long time to fade, but finally he was sure. The lights were really out—all—

Even the warning light which showed that the bars of the door were electrified!

Someone had been sufficiently frightened by the bombardment to pull the master switch.

The electrically - operated locks which kept all the cells closed would still be in operation, of course, powered by an independent "hurricane" generator. But the changing on the bars had just been a jury-rig from the main lines. Sam grappled for the bars,

and after two swipes, one sweating palm closed around cold steel. No lethal shock convulsed his muscles.

Bracing himself, he began to pull.

The door was tough. It seemed immovable. Then, it gave, just a little. His hand slipped; he wiped it on his prison dungarees and took a fresh grip, this time with both hands.

He was not going to be "rescued" by Maurey St. George if he could help it.

HE GOT to work on another bar, dragging it painfully in the same direction as the first. There was no chance that he could get two of them far enough apart to allow him to slip between them; they were too close-set, and bending one meant bending all, since they were all bound together in a two-dimensional sheaf by four cross-pieces. But if he could bulge the whole cagework enough to drag the lock down and out of its socket—

The siren died abruptly. But no lights came on, and no searing shock raced through the bars. Outside the crepitations of the giants' weapons came through loudly; and now, too, there was an occasional, heavy *blam*.

Anti-aircraft shells.

Sam pulled. The hinges

ground against the stone. One corner of the door scraped protestingly against the concrete floor. Sam bent, seized that corner, and forced it out and toward the center of the cell—

With a coarse screaming, the bolts sheared. The thousands of foot-pounds of drag testing their small cross-sectional strength had told. The door came inward—against its normal direction of movement—about seven inches. Sam crammed himself between it and the wall, shoving with all his strength—

And was out in the corridor.

Ten minutes and two killings later, Sam Ettinger, the gentlest of giants, was at large in the terror-capped city.

KELLAND pulled an edge of the blind away from the window, with the delicate movements of a man who half expects the material to tear in his hand, and peered with one eye around it out at the dim, eventless woods. Then he sighed, let it fall to, and turned on one shaded lamp.

"We're on the spot, Sam," he said heavily. "I did my best to keep those tee-total damned fools from staging that raid, but I couldn't get a soul to listen to me. I'm just supposed to design weapons and play dumb about what's

done with them. Anyhow, you were lucky to get away, and I'm glad to see you. Is there any hope for salvaging anything?"

"I don't know," Sam said carefully, easing his weary, burning feet out in front of him. He had run most of the way to Kelland's isolated, ramshackle house, after he had managed to fight clear of the panic around the prison and get out of the clogged center of the city. "There may be. I was hoping that you wouldn't be part of either party on the raid, but I wasn't sure. I'll confess that I came close to bursting into tears when you opened the door to me."

"That's all right," Kendall said, his own feet suddenly seeming two sizes larger. He shifted in his chair. "Forget it. Where's Maurey; do you know?"

"No, don't you?" Sam said, astonished.

"No, Sam. He was supposed to lead the Titans to the prison, but he never turned up. They waited for him half an hour, and then someone came in shouting an Atlantean counter-raid. They all took off in a complete rabblement. A fanatic named Briggs—I think you remember him, the tetra who did Methfessel's first propaganda work?—well he took Maurey's place."

Sam groaned. "And here we sit, waiting to be arrested, while the giants help the diploids to destroy us! Kelland, you built all this apparatus; I don't know to what uses you modified my principle. Isn't there any step you can suggest?"

"Well," Kelland said cautiously, "I can at least find out how the fighting is going." He got up and took down a good helmet from a high bookshelf. "You needn't worry too much, you know, Sam. That force of yours has polarity—don't look so flabbergasted, did you ever encounter a field that *didn't* show polarity?—and I took the trouble to make direct connections between the armor and the projectors. They can't do much more than stun each other—"

"All right, all right, but they'll be massacred by the diploids when they come down!" Sam shouted. "Bullets don't carry charges to be repelled by like charges!"

KELLAND looked alarmed and settled the helmet on his huge head.

"Briggs? Briggs! Ah; good. This is Kelland. Did you lose anybody to the anti-aircraft shelling? ... Well, that's not as bad as it might have been. Good thing you had sense enough to get out of the air.

Why don't you pull out?... You *have*? But great God, Briggs, there's no sense in that—Sam's escaped. Get out of that concrete tomb before somebody puts the lights on.... Never mind the Atlanteans. They can hear me as well as you can. They know Sam's gone. Think about the future of the giants for once! Get out before the diploids trap you in there. They may decide to blow the whole place up, guards, prisoners, and all, just to trap you in there.... Dammit, Briggs, you're a fool, and a giant fool is a bigger fool than a little one. Get everybody out of there. They'll trace the plant here sooner or later, and if you're in the air then it'll be a long fall!"

Sam sat bolt upright. Kelland looked at him, raising his eyebrows resignedly, lifted the helmet and held it delicately in his hands. "They're in the prison," he said, "fighting with the Atlanteans and the diploids, but he isn't sure about our own losses. I can't seem to get any sense into his head. He doesn't believe that you're out. You'd almost think he wanted to shoot you down himself, he's so eager to locate your cell."

Sam let that pass. "*Can you cut off their power?*" he whispered.

"Why, sure," Kelland said,

turning the helmet reflectively. "I didn't think it safe to power each suit individually. Neither did Methfessel. We wanted a way to ground both teams if tempers got lost and the tournament showed signs of turning serious."

"Where's the generator?"

"Right here, under the house. They pick up the broadcast from the helmet transcaster—the little Christmas tree you see here."

"Kelland," Sam said grimly, "give me that helmet!"

PUZZLEDLY, Kelland handed it over, adjusted the cheek-mike to Sam's face. Sam said: "Briggs, you've got five minutes to get out of there."

"Mind your own business," a harsh voice snarled inside Sam's skull. "You chose to stay home. We'll conduct our business without you—and remember you afterwards. Right now, keep your nose clean, or..."

Briggs' voice trailed off. When it came again, it was shockingly different. "*Ettinger, is that you?*"

"That's right," Sam said calmly. "Your boss has run out on you, Briggs. He's snitched Sena for himself, and left you all to massacre each other. What you all fail to do to each other, he thinks the diploids will finish."

"You're lying!"

"Oh? Did you read the records of the trial? Don't you know why Maurey wants Sena? And why he wants the rest of us dead? But it's too late for you to begin thinking; I'd better do it for you. Get over here, to—the power source. Fast. All of you. That includes Atlanteans. Five minutes, remember; at the end of that time, I'm going to switch the whole fool lot of you right out of the sky."

"You dirty butcher!"

"Not I," Sam said cheerfully. "I'm giving you a break you don't deserve. But be sure you're—over here—before the five minutes are up. After that, your pop-guns won't pop any more. *Git!*"

HE TOOK the helmet off. Kelland's eyes were bug-ging. "Are you nuts?" Kelland said. "They'll flay you alive for the threat alone. Half of them already think you're a traitor. And you didn't give me a chance to tell you—but every tetra wearing one of my suits heard every word you said. Are you trying to commit suicide along with the rest of us?"

"No. I wouldn't have bothered to say anything into your helmet if I'd thought I was talking only to Briggs. Anyhow, I'm not going to be here when they arrive, Kel-

land. I've got other business. I want Maurey."

"I heard that part of it. I don't think I believed it, though."

"I didn't believe it either, at first," Sam said soberly. "But it's true. He's the one who killed Dr. Fred, not I. He found out, accidentally, that our polyploidy was very mixed in nature, and that the way its manifestations will occur in the generations to come is going to be mixed. It was Sena's records that drove the point home to him, and it hurt his sanity. He wanted the giants always to be giants, always obviously superior, always able to lord it over other humans. He planned to revenge Pasadena by running it in reverse—by wiping out the diploids with the weapon I gave him."

"But after the trial, he knew that could never happen. He knew that the future lay in the assimilation, and the gradual re-appearance, of polyploid characteristics among 'normal' people. So it seems that he's decided to ditch the obvious giants, all of them into destroying each other, with the happy collaboration of the diploids—while he, Dr. Maurice St. George, superman, sets himself up to become the father of the future."

"So now there's nothing

left to him for his pains but Sena. As long as he can hide her, he can protect himself, he thinks, from the present, and be patriarch of all the generations to come. But he can't hide her, Kelland—because she's mine."

"How'll you find her?" Kelland asked gently.

"Isn't Dr. Fred's old vacation shack in these mountains somewhere?"

"I never heard of it."

"So you haven't, I forgot," Sam said. "Sena and I wouldn't have known about it either if Maurey hadn't opened Dr. Fred's safe. There wasn't any other record of it, and Dr. Fred himself never mentioned it. But it's around here, somewhere. And it's where Maurey had to go. He would hide himself among those papers; it's the only way he thinks. I should know."

HE STOPPED to think. "Kelland, tell the diploid police about this; we'll need them. But not until our own people get here and you can make them understand what's at stake. Give me one of those helmets and I'll report back as I go, so you all can follow me. We'll have to smoke Maurey out ourselves, but we'll need the diploids to make it good. And we'll need to show

them that we're acting in good faith."

"You'd better take the whole suit," Kelland said, even more gently than before. "Maurey will be armed with it, too, and there'd be no point in being killed by your own discovery, when protection's available."

"Okay."

"Sam," Kelland said. "You haven't answered my question yet. Excuse me, I guess I haven't asked it yet."

"What is it? Go ahead, Kelland."

"How do you plan to find her—and him?"

"I have a friend," Sam said, smiling suddenly despite his heavy breathing. "Sena said you were keeping the friend here for me. Do you still have her here?"

Kelland looked stunned. Then his answering, delighted smile irradiated the room. "Yes Sam," he said. "Your friend is here. Go ahead. I'll do as you say. Your friend is—hell, man, go to the door and call!"

Sam strode to the door and threw it open upon the foresty night. Behind him, Kelland added: "And—good hunting, Sam!"

Sam called: "*Decibelle! Decibelle! Come to Sam! Come to Sam! Decibelle—here, here, to me! Decibelle, here, to me!*"

There was a glad and thunderous barking. Sam went out into the night.

IX

THE FOREST was tar-black, and itchy with the small nightmovements of an old woods in a populated and resorted area, the movements of creatures too small to tempt hunters and too adaptable to care where they lived, the movements of tattered leaves and scrub wood, mice, squirrels, sparrows dreaming, barn owls, roaches, moths, midges, all the noises of regrowth after too-heavy timbering.

Decibelle tugged. Sam knew approximately where Dr. Fred's shack was, and, though he had never been there, probably could have found it in daylight by himself. But the urgent need now was to get to Maurey—before the inevitable marshalling of diploid justice against the insurgent giants set Maurey free.

And not only for the protection of the giants. For the protection of Sena, who was their future.

He stumbled over something which might have been a root. It was hard to tell, because the pressor-field disturbed his footing. Trying to recover, he slammed face-first into a tree-trunk.

The golden casque clanged. Dazedly, Sam righted himself, holding the dog back with difficulty. On his back, the heavy flying apparatus hung uselessly. The pressor-field was useless for collisions of this sort, cushioning the blow not at all, since all its pressure was out and away from Sam, none of it back to him. It could shove branches out of his way, and protect him from mosquitoes, but it could not push over a tree. And Sam didn't use the pistol.

So much for invincible weapons, Sam thought. They lack discrimination.

THE PULL along the rawhide that led to Decibelle continued, and Sam let it draw him. That impact on the casque had been rather heavy. Better see if the radio was still alive. He pulled the cheek-mike over. "Kelland?"

"Present," the earphones said at once, amid the forest-murmurs.

"Good. Kind of thick going here. Kelland, do you have any foreign language?"

"Uhm. Will French do?"

"No," Sam said. "All I know about French is that it forms plurals with soundless X's sometimes. Besides, Maurey speaks it, and I don't care to have him know what I'm up to. You don't by any chance speak German?"

"*Doch gewiss*," Kelland said shifting immediately into that language. "My family name was Keller, until I changed it to keep the tetraploid stigma off my relatives. But Maurey—?"

"No," Sam said. "German is a chemist's language, not an engineer's—Beilstein and all that. I owe my own knowledge of it chiefly to a boyhood enthusiasm for Wagnerian opera. The enthusiasm didn't stick, but the language did. Now, what's going on back there?"

"Nothing yet. I'm still waiting for someone to show up," Kelland said. "Any further instructions?"

SAM STUMBLED and swore. Then he said, "Well, give them the whole story, and try to keep them in hand until I find Dr. Fred's place. I'll call you all over here after I see how the land lies. Leave behind a cadre to defend your power source, or we'll all be *kaput*. And, oh, yes, as soon as you can, send off a couple of our biggest boys to kidnap somebody in authority—an Army officer, preferably, or a state cop. Equip the prisoner with a helmet, so he can hear what we're saying and follow whatever develops, but don't of course give him any flying equipment or pistol. Bring him

along when I yell for help. Got all that?"

"Um," said Kelland, in the voice of a man who is taking written notes. "*Erzahl*" *Geschichte... stehl*" *Sicherheitsdiener* (that covers all categories, doesn't it, Sam?)... *gib' Helm stell' Hindtreffen*. That about it?"

"*Jawohl*," Sam said, and then, "*Ouch!*" I'm going to shut up for awhile. Decibelle seems to be drawing me through a jungle-gym made of barbed-wire."

"All right. Hello, here comes Hammy Saunders. I'll sign off too, since I'll have to speak English for a while to explain things to the newcomers. But I'll keep the ear-phones on."

Sam pushed the mike away again and said, "Hey-Decibelle?"

Rrrrrghrrph.

"All right. Go ahead. I'm with you."

Decibelle obviously was not tracing out any path the brittle Dr. Fred could have taken to his lodge by custom. These mountains were ancient and much worn-down, so much so that visitors from the Far West usually affected not to see them at all, but even so Dr. Fred would have needed an open path. without any steep grades, winding around the bases of the hills.

The dog, on the other hand,

at the moment was dragging Sam sidewise out of a creek-bed full of brambles, and on up the side of a crumbly rock shelf. Obviously, she was taking him along the way she herself went to the lodge, when unencumbered by human company. It was both a compliment to Sam and one more evidence of Decibelle's ability to assess an urgent situation.

Sliding up the hill with all his aching tendons creaking, Sam was able to notice that there was a little of dawn on the sky. Not enough of it had leaked through the trees, down below, to have given him fair warning.

THE DOG was pointing. She had never been trained to point, but evidently she had seen a trained dog assume the odd position and had figured out what it was for. Her mimicry would have won her no prizes at any show, for her hackles were up and her ears laid back, but Sam was hardly inclined to be a purist about it. "Good girl," he said softly: "It's on the other side of the crest, eh?"

Decibelle's tail wagged once and straightened into the "point" position again.

"Good. Lie down, Decibelle. Stay here. I'll be back."

Sam scanned the dim hill

carefully and then lay down, working himself up the slope on his belly. At the top, he cocked one eye cautiously over the edge.

The other side of the hill sloped more steeply, and the shack clung to it, looking out over a placid and lovely valley with a stream at the bottom. This slope was grassy; and at a radius of 20 yards from the shack, the grass bent away in a perfect circle. A pressor field.

Sam considered the problem. It was about what he had expected to find. He knew, as well as anyone knew, the characteristics of the reactionless effect. Since the field worked only in one direction, it could be used as a shield, but *not* as a detector. Force exerted against it had no effect upon its generator; the field did not push back, either physically or electrically. That meant that the only road to perfect security for Maurey was an unremitting, 24-hour optical watch, either in person or by a video watchdog. If Sam kept out of sight, Maurey would have no way of knowing whether or not anyone was in the vicinity.

MAUREY, of course, had heard the German conversations, but had no way of knowing what they meant. He

might have guessed that he was in d a n g e r of being smoked out; on the other hand, the fact he had chosen Dr. Fred's lodge as a hide-out—and the existence of the pressor screen showed that he had—was a clear indication that he did not expect anyone to suspect the place. The screen was routine; it would baffle diploids, but Maurey could not have expected it to baffle the giants for long.

He simply had not expected Sam to figure out where he was hiding. In that he had overestimated himself and—for the last time—seriously underestimated his former assistant.

Sam withdrew a few feet and called Kelland.

"We're all here, Sam," Kelland's voice said. "And we've got our Authority. We had a little trouble with Briggs, but he lacks Maurey's deviousness. He tried to sell the rest of us on Maurey's program by talking about the necessity of Dr. Fred's death. It made convincing the rest of us very easy; we have Briggs salted away."

"You can come on over," Sam said. "The place is on the side of a hill overlooking the valley on the far side of the old deer preserve. If you come in on it from the North, he won't be able to see you."

"Sam!"

The voice was Maurey's. It sounded cool and amused. "I've been listening to you. Whatever in the world made you think I couldn't speak German?"

"All right, let's hear you speak some," Sam said.

"Don't be ridiculous. You've made a big enough fool of yourself already; you don't even recognize your friends. They've freed you, and you can't think of anything better to do than hatch infantile plots with poor Kelland, who can be convinced of anything."

"Where are you?" Sam said.

"I'll tell you that when I can depend upon your common sense, not before. I'm not going to endanger the whole project for one man who doesn't know when he's well off."

"Where's Sena?"

"She's right here with the rest of us. If you want any part in the world of the giants, Sam, you'd better have some sober second thoughts. Our patience is about worn out; in a little while we'll have to go ahead without you—and I don't suppose the little obsolete folk will deal kindly with you."

A SHADOW drifted in front of Sam, and Hammy Saunders landed lightly

beside him. Sam said, "You could be right. It's happened before." He pushed away the mike again. Maurey's pathetic fictions continued to purr in his ears.

"Hammy, he's got the place surrounded by a field. We'll have to undercut the rock below. Send three or four men down into the valley, under cover, and get to work on the hill with pistols, just below the effective limit of the screen. Don't start till I say 'when.'"

"Right."

Hammy melted away. Sam sat on the hillside next to the dog and watched the dawn-colors brighten, pulling sweet-clover and sucking the nectar from the tight white flower-clusters. Maurey seemed to have signed off, at least for the moment.

Kelland and two other giants came in silently, dragging with them a frightened diploid in civilian clothing, ridiculous in outsize golden helm. Sam took one look and whistled.

The man was the governor of the state.

"*Sicherheitsdiener* covers a lot of ground, all right," Sam said, amused in spite of himself. "Sir, I'm sorry for this forcible abduction, but believe me, we mean you no harm. We mean no diploid person any harm. We're here

to smoke out the one giant among us who's created the trouble, beginning with the murder of Dr. Hyatt. We've been forced to bring you along as a witness to our intentions."

THE GOVERNOR was gray with terror, but he had an inherent dignity which stood him in good stead. "I'm forced in my turn to accept that, for the moment," he said stiffly. "I'll watch and listen, since I'm powerless to do otherwise. But you may as well know that I don't believe you."

"There's no necessity for that. If you watch and listen with an open mind, our case will prove itself. You've already heard my conversation with Dr. St. George. He's over the hill, in a shack that used to be Dr. Hyatt's summer lodge. He's holding one of us with him, the girl about whom you've heard so much; Miss Carlin. He doesn't know yet that we're anywhere in his vicinity. When we turn him out, you may hear more than enough to give you the full story; at least, that's our hope."

"There are militia scouring the whole countryside for you!"

"We know that; that's why we're here. Had the militia arrived before us, had we

told the militia where Dr. St. George was and why we wanted him, there would have been a number of deaths—including Miss Carlin's. He's well equipped to stand off any normal siege, except one conducted by heavy artillery, which would destroy him and Miss Carlin without proving a damn thing. We mean to convict him out of his own mouth, with no loss of life. Doesn't that strike you as a preferable way of going about it?"

THE GOVERNOR passed a hand heavily across his forehead. He was swaying a little. "Perhaps so," he said. "If there's any truth in it at all, I'm in no position to be judicious. I've been kidnapped by agents of a convicted murderer, Mr. Ettinger. My view of whatever it is that you plan will have to be colored by that situation. Go ahead. I'll pay close attention; that's all I can promise."

"That's quite enough," Sam said gravely. "Your recognition of your bias is also the assurance I need that you'll not be swayed by it. Kelland, see if you can find a vantage-point for the governor that'll be out of the way of any possible fireworks, but will still allow him to see everything

that happens. He's the most important person in this show, far and away, and ought to be guarded accordingly.

"Right," Kelland said. "Governor, we'll have to hale you through the air again—for the last time, I hope."

"So," said the governor, "do I."

They went away, Kelland leading, followed by the two giants with the small ineffectual figure of the governor between them, skimming the tree-tops in a wide arc toward the opposite side of the valley. The sun was coming up on the left, reaching gradually into the valley itself; a great many birds were making a musical bustle. There was actually a small curl of wood-smoke coming up over the brow of the hill from the shack, blatant, self-confident, innocuous.

After a little while Kelland came back. "The boys are working on the hill under the lodge," he said. "It seems to be mostly soft marl. No alarm from Maurey, nor any sign of suspicion at all, yet. If everything goes right, the shack ought to begin to totter in about five minutes."

"Good," Sam said. He got to his feet and began to climb, unhurriedly, his face calm, his fists clenched. He went over the brow of the

hill and stood looking down on the lodge.

"Maurey," he said. "You've been found. We'll give you ten minutes to come out of there."

MAUREY began to laugh. "Out of where?" he said. "Sam, what a child you are! Did you think you could get away with that 'I know where you're hiding' line on me? If you want to know where we are, I'll tell you; but not before I'm sure you won't sell us all out to the diploids."

"There are no human diploids," Sam said patiently, "and you've been found. Come to the window, Maurey, and look up the hill."

There was quite a long silence.

"I see," Maurey's voice said at last. "Well, I suppose no refuge is perfect. And I suppose you've a great howling mob of diploids on your trail. You'd best send them back, Sam, before they get hurt. Don't imagine that a shack on a hillside is all that remains of tetraploid power."

"I don't. I don't imagine that you've any great army of giants in there, either, Maurey."

Maurey chuckled again. "I won't argue with you. I retain some shreds of respect for you, Sam; and I recommend most strongly that you pull

out before the final battle breaks. It's all over for the diploids; nothing that you can do can change that. Why get hurt?"

"There are no diploids," Sam repeated. "Where is Sena?"

"Sena?" Maurey said. "Why, here, with the rest of us."

"I'd like to talk to her."

"She's busy."

Sam moved one hand. The hillside, the ledges of the valley, the hillocks, the grasses uttered giants; they stood everywhere, motionless, like the dragon's-teeth soldiers of Cadmus.

"Here are the giants, Maurey," Sam said. "You can see them, if you'll look. There are only two or three missing, at the most—not counting those that were caught or killed in your raid on my prison. One of the missing is Sena. Where is she?"

"She's here." Maurey's voice was as confident as before; there was nothing in it to indicate that a bookcase-full of his own lies had just fallen forward upon him.

"Let her out."

"She doesn't want to come out. She's got more sense than all of the rest of you put together. I don't know how the hell you sold your brothers on this stupidity, Sam—I suppose Briggs got killed.

I can think of no other explanation. Killed trying to rescue you, Sam. Anyhow, there's no essential change in the situation. If all the rest of you have sold out to the diploids, Sena and I will work out the proper destiny of the giants without you. Go home and rot, all of you!"

"There are no diploids," Sam said. "Let us talk to Sena."

MAUREY was silent. After a while it seemed that he was not going to speak again; then, startlingly, his voice came in, loudly, urgently. "The rest of you," he said. "Listen to me. You're committing suicide. You had power over the diploids in your hands, and you've given it over to the man who murdered your creator. I gave you a cause; I gave you the means to be free of the pigmies, truly and finally free. Are you going to give all that up now?"

"Briggs said you killed Dr. Fred," a voice that Sam did not know said. There was no telling which of the gigantic, gilded statues had spoken.

"What does that matter?" Maurey demanded. "Be realistic! I didn't kill Dr. Fred; obviously Sam did; but Dr. Fred's death was quite necessary. It provided us with the chance we needed to

arouse the diploids against us. Dr. Fred preached peace with the pigmies. We all know that no peace was possible. What was needed, what's needed now, is war. You have the instruments for that war in your hands, I gave them to you, and intelligently used they're invincible. And you have the occasion. You could sweep the planet."

"You divided us," another anonymous voice said. "You made us fight each other."

"Harmlessly," Maurey scoffed. "You can't hurt each other with the force-pistols. I saw to that. Naturally I saw to it that you quarrelled with each other—there was no other way to disguise the raising of an army of giants. But your weapons are deadly only against diploids."

A whisper, eerie and disembodied, came from among the statues. "*How about the anti-aircraft guns, Maurey?*"

"How about them? Your losses were tiny. Sam himself admits that."

THERE WAS a low rumble from the giants.

"Too bad, Maurey," Sam said, implacably. "The truth is out, you see. It came out at the trial. *There are no diploids.* All human beings are tetraploid. We—the giants—are polyploid, but we're all polyploid in different de-

gree. As giants, we won't survive; but we can survive through Sena and others like her, because Sena's children will look normal. They'll be able to blend back into society, and they'll allow their children to forget their heritage. Eventually the polyploid characteristics will begin, to reappear, piecemeal, until the whole race is heavily polyploid, and then giants will be commonplace and not the subject of pogroms.

"But as for you, Maurey; *you are a Pasadentist.* A subtle one, but a Pasadentist all the same. You found out about Sena, and you killed Dr. Fred to keep that a secret. You pitted us against each other, in the hope that the normals would destroy us all while we were snarling at each other. Pinning the killing of Dr. Fred on me gave the normals reason to hate us, and staging the raid on the prison gave them reason to wipe us all out—

"While you hid here, with Sena, planning to become the sole father of the polyploid humanity of tomorrow—sole Father of the tough, long-lived race that will be needed to reach the stars.

"It was a good gamble, Maurey. But since it was insane, it failed."

Maurey said, "Ridiculous."

"Then let us speak to Sena.

If she's free and on your side, she has a helmet and has been hearing everything that was said. Let her speak."

"Certainly," Maurey said, calmly. "As I remarked before, she's busy. I'll see if she wants to talk to you. Hang on."

SILENCE. The sunlight was now almost down to the bottom of the valley, where Kelland's sappers were worrying the foundations of Dr. Fred's lodge. The clouds were pink with innocence.

"Here she is."

"Sam?" Sena's voice said quietly.

"Yes...yes, Sena."

"I'm all right. There's no reason for you to worry about me at all. He's got a gun on me *but he won't dare shoot—*"

On the last word her voice faded abruptly, and Sam's earphones shivered. His answering gasp was half fright and half sheer admiration. She said so much in so few words—

"Speak up, Maurey!" he shouted. "Any last lies?"

"Keep your distance, all of you," Maurey said. His voice was tight, frigid. "You're a pack of fools. Just remember that you're outside, and I'm inside with Sena. Sam's quite right! Sena's the key; if the giants are to survive at all, it

has to be through her. And if any one of you makes a move toward the lodge, she'll die. She was right, too! I didn't kill her for squawking; I only removed her helmet; I don't kill for little things; I kill for reasons only. Like Dr. Fred. Go away. Your future is in my hands, and there's nothing you can do about it!"

Suddenly, the lodge sagged sharply to the right. A mass of rubble went thundering and foaming down the hillside into the valley. Maurey's incredulous scream made Sam's ears ring.

The flat-lying circle of grass stood up.

The failure of the foundations had cut Maurey's power-line.

"*Decibelle!* Get him, *Decibelle!* Quick *Decibelle get Maurey!*"

THE IMMENSE animal charged toward the hut, impossibly low to the ground. a force-pulse shot out from the sliding structure, but it was high.

Decibelle launched herself and went through the small pantry window in an explosion of glass. Maurey screamed again. Sam found himself running. Another bolt from inside the lodge blew planking outward in splinters. Still another never got

outside at all, but the chimney tottered and collapsed, dumping hot bricks on the roof.

"Take her off. Take her off! I'll kill you all, I'll kill you all—"

Maurey had his dog at last.

Before Sam was much more than halfway to the lodge, the hillside beneath it gave way completely, and Maurey, logs, bricks, fire, Sena, future, past, dog, plaster, dirt, concrete, pipes, wires, life, liberty, pursuit and happiness slid in one big untidy chaos

toward the pineneedle floor of the valley, just ahead of the sun's fingertips.

It took a little while to separate Sena's just-living body from the wreckage.

It took longer to separate Decibelle from the ruins of Maurey's throat.

But after a while the giants were gone, and the shaken governor too; and the sunlight touched the valley, all the way down to where the wreckage lay, and began to climb back up the slopes.



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You can't stop progress, but One-Punch-Card O'Brien had to try. Who could blame him when he and his guild were on the verge of becoming obsolete?

THE INSTIGATORS

by R. E. BANKS

Illustrated by ORBAN

SNICK-SNACK BERTOLLI walked into the Instigators' room at Honest Harry's, the Robot Dealer, and tapped One-Punch-Card O'Brien on the shoulder.

"Guess what I saw. Your girl-friend, Marie, bird-caging out there on the Sales Floor with the Dit-Dot Kid."

One-Punch-Card O'Brien looked up from his work. His big face reddened. "Mind your own business, Instigator. We promised out that robot by your desk. Lemme see you over there walking-that-robot-back-home."

A moment later Confetti Macready came in from his sip of afternoon coffee. "The Dit-Dot Kid," he said, "is out on the Sales Floor drop-bottomed with your golden Marie doing a seance gambit."

"Drop your own bottom at your desk and cut yourself a quick rise-and-shine for that customer's robot," snarled One-Punch-Card. This time his face stayed red, and the confetti flew from the IBM cards in his hands.

About that moment Chess Player Gonzales came in, his latin face wreathed in smiles. "Say, Chief," he said, "did you know your best girl is out on the Sales floor rowing the boat with the Dit-Dot Kid?"

One-Punch-Card O'Brien slammed his punch on the table so hard that a stack of IBM cards flew. "Shut up, all of you!" he roared. "We're supposed to be cutting the input cards for the customers' robots, not doing an old lady's track, follow-and-gossip. Now can it!"

The buzzer on the Chief In-



Marie Two—looking like the real Marie—sat beside the casket and looked real pretty...

stigator's desk buzzed angrily, and One-Punch-Card leaned over to snap it on with his big fist. "Yeah?"

"O'Brien!"

Only one voice on Honest Harry's Robot Lot dared speak to the Chief Instigator like that. Honest Harry himself.

"Yeah, boss."

"One of your Instigators has been sitting out on the Sales floor for half an hour wasting the time of one of the lot girls. What the hell goes?"

"The Dit-Dot Kid," said One-Punch-Card, "is a very special type Instigator, Boss. But I'll look into it."

Snick-Snack Bertolli's eyes shone. Confetti Macready winked broadly at him. Chess Player Gonzales did a little dance around the robot he was working on. If there's anything an Instigator loves it's a solid rock-and-roll.

Trouble. Action.

ONE-PUNCH-CARD flipped up his card punch in his hand and picked up a blank IBM card. Four robots stood against the wall, four practice robots. One-Punch-Card O'Brien was the only Instigator on all of Robot Row that owned four practice robots.

"Track Eenie," he roared. "Track, Meenie. And a chop-chop!"

At the voice command two of the silent humanoid robots came to life. They marched across the room to One-Punch-Card's desk quickly, as he ordered. One-Punch-Card snicked the holes in his input cards with a practiced hand. The other Instigators looked at each other in delight.

"The only reason I hired that stupid walkie-talkie, the Dit-Dot Kid," said One-Punch-Card to nobody in particular, "is because he's a good promenade man with a college degree. I never saw a promenade man before with a college degree, and I got a lot of respect for paper. But I ain't saying I was right—"

He flipped open the card storage under the armpit of his robot, Eenie. He fed in the new input card he'd just cut. A stiff piece of cardboard six by five inches, all punched with tiny holes. Everything on one card—that was One-Punch-Card O'Brien, the greatest Instigator the Row ever saw.

He turned a dial and the card started feeding through the reading brushes inside of the robot and Eenie walked out. Then One-Punch-Card fed the other card to Meenie who departed, and the other three Instigators left their desks and crowded to the door

to watch, but One-Punch-Card sat down at his big desk with nonchalance, and went right on cutting a grocery-store gambit for a customer's robot, not even looking up.

WHENEVER the Dit-Dot Kid could talk about his invention, he was eloquent. Marie O'Connor leaned forward now, peering at the spread-out camera parts on the little table, not quite understanding—but feeling the touch of his knee, and seeing the mat of the Kid's thick golden hair, and accepting the lance-darts from his intense blue eyes that sugared inside of her. Whenever the Dit-Dot Kid looked at Marie O'Connor, she had to be careful of her breathing for fear it would stop. The Instigators, the salesmen, and the steady customers would all tell you that the golden girl cared only for money, that her sun-tanned hide covered a soul as hard and cold as the Robot Owners' Loan Bank, but something new was happening to her. She even let the Kid lecture her.

"This Instigator's business is silly," said the Kid. "Figure it yourself. You buy a robot and take it home. It's got to do jobs around the house; it's got to go out and get a job of work to pay for itself. So

you have to hire an Instigator to cut input cards to make the robot go through the right motions. You need a hundred and fifty to two hundred input cards, at three dollars the card. You can't machine-cut those input cards, because distances and heights are different in every home in the land and in every office where your robot goes to work.

"But suppose your robot gets fired, or you move to a new house? You have to go back and pay an Instigator all over again to cut new input cards to run the robot. Another six hundred bucks. No wonder the robot economy breaks so many people."

"The way you can go broke is what makes robot-owning fun," said Marie.

He gave her one of those looks of disgust. "We've got a sick robot economy," he chided her; "my invention helps cure that. You attach my camera to your robot. It takes 3-D pictures of the act you want it to perform. Only instead of film, it prints right here on this magnetic drum. Binary-coded information. You can run the robot right off the digital information on the drum. When your robot needs to learn a new set of movements, you simply re-record. The camera costs maybe a thousand dollars and

lasts the life of the robot—"

"Wonderful!" breathed Marie. "Clever." She patted his hand.

WHY, OH, WHY, did this wonderful jerk have to melt her insides to slag? She'd watched 'em come and go on Robot Row. None of them had interested her except One-Punch-Card O'Brien, the big man with the pipe between his teeth, the greatest Instigator of them all.

But now this Dit-Dot Kid had the million dollar mark on him. And something else; he stirred her body, her mind and all of her desires...

The shadow of a robot fell across them on the glittering Sales room floor.

"Hey—ulllp!" yelled the Dit-Dot Kid. The robot picked him up as if he was a sack of potatoes, held him in the air and turned him around. Then Eenie, the robot, drop-bot-tomed—the way One Punch cut 'em so smooth—on the chair the Dit-Dot Kid had just occupied.

Meenie, the other robot, slid up to Marie before she could react. The robot picked her up like a sack of tomatoes, held her in the air, and turned her around. Then Meenie, the robot, drop-bottomed in the chair Marie had occupied.

Two robot hands flashed

high. And the Dit-Dot Kid, aged twenty-five and Marie O'Connor, aged thirty-three, found themselves being soundly spanked, like children, in public.

The customers smirked; the salesmen howled. Standing in the doorway, the Instigators did a real jump-for-joy gambit, a couple of delighted swing-and-sways and gave out with glories-for-you which any robot-lover will tell you is a brisk, joyous slap on the other man's back. That One-Punch-Card cut 'em cute sometimes.

THE DIT-DOT KID could cut 'em well, too, when he wasn't fooling around with his camera invention and he went to his desk with a hard look at One-Punch-Card and set to work. One-Punch-Card gave it right back at him; but the work went on. The salesmen brought the new-sold robots up to the door and thrust the blueprints through the slot. The Instigators took the robots and cut the cards. They cut full promenades, and track-lefts and track-rights, and sky-hooks for stairs, and round - the - mulberries, and rise-and-shines, and drop-bot-toms, and chop-chop-walkie, and the bus-rider's stomp and walking-that-robot-back-home.

Then they racked the cards and shoved 'em in the humanoid robots and gave 'em the come-and-go-mad. The robots performed right there in the room and if it looked good, the robot went back to the customer along with the customer's blueprints.

But Snick-Snack Bertolli tried to sneak out a robot with a poor rise-and-shine, because Snick-Snack couldn't cut a good one. His robots always got halfway up, froze, and then finished the movement with a jerk which was known in the trade as Bertolli's Burp. So One-Punch-Card rapped on his desk with his hand-punch and made Confetti Macready take care of that rise-and-shine for Snick-Snack. For his part, Confetti Macready was a good rise-and-shiner but a poor drop-bottom man; and if he tried to sneak a weak drop-bottom past One-Punch-Card, O'Brien would fine him five dollars and make Chess Player Gonzales cut it.

For his part, Chess Player Gonzales could cut delicate, precise arm, leg and hand movements as well as drop-bottoms, but he was a lousy promenade man.

And that's why One-Punch-Card O'Brien had hired the Dit-Dot Kid. The Dit-Dot Kid was a bright promenade man

and could creep 'em, walk 'em, run 'em and race 'em; but he went crazy-helpless when he got his customer's robot inside a small room. That's when the rock-and-rollers took over.

There you had it. A good promenade cutter, a small gambit man, and two experienced rock-and-rollers. One-Punch-Card's staff was expert and balanced and his cup would've been full—

Except that the Kid had this crazy invention that was going to put all the Instigators out of business.

Except that Marie liked the Kid, who was going to destroy his own profession.

AT FIVE o'clock, when the last gambit was cut and the others had left, One-Punch-Card strode over to the boy's desk. He picked up the camera that the Kid had been showing Marie. "And this is going to put all us Instigators out of business?"

"That's right; someday. Maybe soon, if I can raise the money to get into production. This re-design finishes the job."

"Bellevue's full of engineers that tried to find a better way to instigate robots, Kid."

"That's what I heard at In-

stigactor's School," said the Kid.

One-Punch-Card got red. "Lemme tell you an important thing, Kid. The Instigator's Guild won't ever allow another system of Instigating the robots. They'll cut the Big One for anybody that comes too close. Don't you know that?"

"Maybe."

"Listen, jerk. Today I cut the Little One for you, understand? I don't want to ever have to cut that Big One."

The Kid stood up, brushing his hand-punch confetti off his lap. "You can't stop progress," he said.

The eyes of One-Punch-Card blazed. "Progress, huh? There's something else in your progress I don't like, Kid," he said. "Lay off Marie O'Connor, see? It so happens, in case you ain't noticed, that she and I are rowing the boat together."

The Kid bowed very formally to One-Punch-Card. "I have no designs on your woman," he said. "Except that she's lent me quite a lot of money for the camera, and I can't very well tell her to chop-chop-walkie."

Then he picked up his coat and went out, leaving One-Punch-Card purple in the face, too angry to say a word.

ONE - PUNCH - CARD watched him go, thinking bleakly how close the lad was to real trouble and then he heard a sigh and his golden Marie came into the room. "I need money," she said.

One-Punch-Card felt his blood run cold. Not because Marie was talking about money, but because she wasn't talking about the way he'd treated her earlier; she should've been raging at him for that.

"What for, money?" he said. "To give to the Kid?"

She grinned. "He hooked me proper with the money-on-trees gambit. At my age!"

"I thought maybe you had something else on your mind, besides money, the way you've been following the Kid."

Her smile was rueful. "I've been pinched, ogled, chased, handled and even once or twice come close to the rape gambit here on the Row. But this college jerk doesn't even touch me. Come on, Instigator, lend me some chips."

She was honeying him now, standing close in her lot girl's uniform and performing all those tricks of eye and hand that she'd learned so well, that had made her the most valuable lot girl on the Row, kidding the customers to make that robot sale. Nothing crude,

just the wonderful-man flirting.

He looked down at her hands. Her engagement ring was gone. He felt his heart begin to thud in his chest. "Where's your ring?"

She turned red, then white. "I—lost it."

Or pawned it to give him money, he thought bitterly. He made a decision. "It doesn't matter. We've been engaged eight years now; I think it's time we got married."

"Wonderful," she said tonelessly. "Maybe in a couple of months..."

HE REMEMBERED all the years she'd sat at his feet begging for the middle-aisle gambit—and now she didn't care.

"Tomorrow," he said pressing her arm. "Tomorrow, because tonight I've got big business with the Guild."

"The Kid's crazy with courage," she said, "but the Guild isn't going to cut the Big One for him."

"Who says?"

"You control the Instigators' Guild, One-Punch-Card. And I'd never let you punch the Big One for the Kid."

The showdown. Quietly. Just like that.

"I'm going to cut the Big One for him," he said.

The sun was gone; the lights on the Row came in the window and made a flashing pattern on her smooth-cheeked face. The eyes were liquid, independent, dangerous.

"When you cut the death-card for the Kid," she said, "you cut it for yourself, One-Punch-Card, because I'm the daughter of Six Input O'Connor and I know the death-card cut."

Then she turned and walked out, her high heels clicking on the polished, deserted Sales floor, disappearing among the silent robots.

MEN LONG ago had dreamed that in a robot age the factories and businesses would own the robots and service them. Instead, individual people made the capital investment, paid for maintenance and repairs. The companies hired the robots and paid a small wage to the owner. This way the company got the benefit of cheap labor, without major investment and the small investors profited, too—once they had paid off their robot loans.

If they could escape those heavy Instigating charges...

For the first time in his life, One-Punch-Card wished heartily that there was no such thing as Instigating and

then, looking at himself in the mirror in his lonely apartment, he laughed.

He was said to be the greatest living Instigator; he was the leader of the Guild. Marie was his girl. Could he let an upstart of a college kid with lots of courage step in and smash his profession and walk off with his girl?

Ridiculous! He poured himself a shot of whiskey to steady his nerves which, after forty-three years sometimes needed steadying, and decided that if the Kid's invention was any good the robot lot owners like Honest Harry would shove it through without asking any Instigator, and that's how the change would come, if it came. It was time to get rid of the Kid, for his sake and that of the other Instigators. As for Marie's threat, he grinned at that. Irish bluff.

He rummaged in his bureau and found some input cards. There were a whole pile of yellowed cards beside the new ones, the cards he'd once used to try to make Marie's practice robot dance. He failed at that; no Instigator could ever cut the intricate motions on an input card to make a robot dance. He wondered if the Kid could, if Marie was there now with the robot that looked exactly like her, the two of them, heads together,

planning to make that robot, Marie Two, dance. Angrily he threw away those yellowed cards and took up the new ones and began to punch.

HE INSTIGATED Eenie with a hide-and-spy and sent that robot out to the Dit-Dot Kid's rooming place.

He instigated Meenie to go on downtown and put in his application for a marriage license that was too long overdue. With that piece of paper, he could bring Marie to heel.

He instigated Miney to go to the *Golden Gambit* for him.

That left Moe. The big, lumbering robot was his most expensive, his latest addition and there were a couple of special things about him—

"Nebuchadnezzar," said One-Punch-Card, and Moe, in the middle of a promenade, froze. That was the government's stop-kill word. It prevented robots from being used by people to kill or rob other people. That unusual word, by law, would freeze any robot in the land.

One-Punch-Card smiled. It took real talent to cut around the government stop-kill word. Did Marie think she was that good? He put a kitchen knife in Moe's hand. He cut a special input card.

The robot lunged for him. One-Punch-Card back-

pedaled, keeping one step ahead of the robot as he remembered the dits and dots he'd cut on the card. A man who didn't know what was on the card could never have avoided that whipping blade.

"Nebuchadnezzar," said One-Punch-Card.

The robot paid no attention; the robot was a killer now. The robot came to the end of the input card; there was a click and Moe's Silent-Butler card came up next. The robot calmly dropped the kitchen knife and went off to make a sandwich and open a can of beer for One-Punch-Card. But the Big One was in the robot and ready; the killer card.

IN THE BACK room of the *Golden Gambit*, the Instigators were having the usual rock-and-roll. If you wanted to get hold of all the important card-scribblers, this was the after-hours place. Snick-Snack Bertolli was there, fighting his practice robot with Repeater Magruder in a boxing match and losing as usual. Confetti Macready was there, and Chess Player, and all the other boys from all the other lots crammed into this noisy, sacred room. There were a few employment girls, the best-looking, from the agencies that got robots jobs

—everybody else, stay out!

The robots slugged it out, toe to toe, and the crowd cried up their cheers; beer foamed, and bets changed hands—

But the best chair at the best table in that room was empty. The lesser Instigators came and went but nobody sat in the chair, though they all noticed the absence of One-Punch-Card and wondered about it.

Until Miney showed up. Miney wasted no time. He got Snick-Snack out of the huddle on the sawdust floor where he was trying to knock the dents out of his defeated robot with a tack-hammer. He got Confetti Macready out of a poker game where Confetti's robot was twenty dollars ahead. He got Chess Player Gonzales out of his usual robot chess game. And he got Repeater Magruder, and Piddler Putnam, and Dirty Card Nelson and a good collection of Instigators from the other lots besides Honest Harry's. Drunk or sober, they came when One-Punch-Card O'Brien called; and as they filed out into the late winter night, the bartender who served the back room shuddered. "Somebody's up for the Big One tonight," he said.

A CUSTOMER who wasn't an Instigator growled.

"Them damn guys think they own the world. Above the law, cutting a robot's card like that to kill somebody. Cops oughta get on 'em."

"No cop is going to stop no Instigator," said the bartender. "If he did, he knows there's a quarter of a million robots wandering around New York and someday on a lonely street-corner one of them robots is going to suddenly come at him; and they'll never find the Instigator who did it."

"That's what I mean; no control."

The bartender smiled. "You from Montana or something? No Instigator's going to cut the Big One, or even a queer card for robbery or lesser crime, as long as there's an Instigator's Guild—especially with that One-Punch-Card O'Brien in there running things. If an Instigator takes to crime, or tries to cut the revenge gambit on a personal enemy, he's in the same trouble as the cop is. The Instigators don't like their own kind goofing off, and they'll cut the Big One for the crooked Instigator every time. Why, one night when I was on duty here—

DRUNK AND sober they gathered in the lonely apartment of One-Punch-Card

O'Brien, filling the room, smoking it up, jabbering in a thousand tones, eyes showing whites now because this looked like a serious promenade.

It was very formal. One-Punch-Card announced that the Guild was challenged by a new invention, made by one Ralph Williams, an Instigator known as the Dit-Dot Kid. Either the Kid must withdraw this invention, which would ruin the trade, or else he faced the Big One.

Sober faces nodded soberly. That was the way it had to be. No need for the Big One—the Kid would see the light.

Then One-Punch-Card stood up, towering above the others, and sang out: "I call for a vote on whether or not we cut the Big One for the Kid!"

Shocked silence. Murmurings of wonder. Wait a minute, now, dammit, wait a minute—

Repeater Magruder of Sylvester's Steel Men voiced the protest that all felt. "We can't authorize no Big One yet," he cried. "First, we don't know does his system work. Second, there's rumors that your girlfriend, Marie, is rowing the boat with the Kid, and no Instigator's going to vote that punch for some other Instigator's personal revenge."

Which just showed how the

rank and file couldn't face the inevitable; One-Punch-Card had expected this. You had to give them a chance first to savor respectability before they did the deed. And so he chugged ahead, crying: "Vote!"

A few punches dropped on the table, chipping the wood. But only a few. The majority cast negative votes by holding onto their punches with sweating hands, eyes proud in the knowledge that they were giving the Kid benefit of the doubt in a doubtful situation, One-Punch-Card got only ten votes. Snick-Snack rolled with him because Snick-Snack had designs on O'Brien's job when he retired. Confetti rolled too, because Confetti was the perfect employee. But Chess Player Gonzales definitely rocked against him; he shoved his punch deep in his pocket and scowled defiance.

"All right," said One-Punch-Card, seeing the vote was lost, "Only remember, the Dit-Dot Kid isn't a rummy from the back lots around Robot Row like most of us. He's a college man with an engineer's brain first and an Instigator second. He's got the old college know-how gambit."

THEN THE door opened and the robot, Eenie,

walked in. One-Punch-Card had had the practice robot waiting in the hall for a half hour before the first Instigator arrived; his timing was near perfect.

"I sent my practice robot to look in on the Kid," said One-Punch-Card. "Anybody want to hear what he's been up to?"

The Instigators looked apprehensively at Eenie. But they couldn't refuse to hear the evidence.

"Report!" ordered One-Punch-Card.

"This I report," said the robot's voice-track. "In the little apartment of the Dit-Dot Kid I saw a female robot dance. It was the robot called Marie Two, that looks just like Marie O'Connor. It had a camera on its shoulder, and when the real Marie O'Connor danced the camera-shoulder-robot followed her and danced. Then after, when Marie did not dance, the robot remembered and danced again. All this I report."

One-Punch-Card looked around the room at the sober faces.

"If there's any man in this room who can cut a robot dance, let him promenade forward," he said.

Nobody moved. The late winter's air stirred the curtains and put a chill on all the Instigators. No Instigator, not

even One-Punch-Card could ever cut a dance. A robot dancing uses all the motions that a robot could ever use in a job. A camera-device to make a robot dance and dance again is good enough to make a robot do anything an Instigator can do and lots more. The Dit-Dot Kid had cut himself an immortality gambit because all the Instigators had dreamed of that invention that would change robot ways—and now it had been done.

ONLY IT was too bad that it was the Dit-Dot Kid who didn't drink with the Instigators, and didn't roam the Row with them, and wasn't really one of them, for he had no friends in court.

One-Punch-Card needed a clincher. He had that, too. "Have you any recorded messages for us?" he asked the robot.

"I have."

"Report."

They heard the voice of the Kid then. "Marie is here, One Punch. She says you threatened to cut the Big One for me, but I tell you you can't stop progress. I will defend myself with my own practice robot and my instigating camera will be given to the world. Send another spy robot and I'll tell you the same."

That was the Kid—guts, self-confidence. It was up to the Instigators now.

"I call for another vote," said O'Brien softly.

That time the votes heaped on the table, sending splinters of wood flying; that time he pulled all of the punches out of their pockets and racked up the approval he needed. Only two or three grimly held onto their punches in all the sweating room.

It was the Big One for the Kid.

IT WAS beginning to snow when Marie and the Kid left his apartment. Marie shivered and pulled her fur coat up tight around her throat. "Hurry—"

The camera drum had been removed from Marie Two now, and the Kid wrapped it carefully in a newspaper to protect it from the weather. His motions seemed deliberately slow to her. "I'm not afraid," said the Kid. "They can't stop progress. Once I get this camera mounted on my practice robot, we'll be safe."

"We aren't there yet," she said, tugging at his sleeve. Didn't this wonderful jerk know that when the Guild acted, it acted fast?

"You promised me that once you got Kid Two rigged up for safety, you'd leave town

for a couple of weeks," she said, leaning against him. "Tonight; you'll leave tonight."

A frown crossed his face; his breath steamed in the air. "Sure. If you think you can sell Honest Harry on trying out my camera by yourself. Only I don't think you can."

"Listen, honey, I'm just an old tramp, a dame too long a lot girl, but I know how to sell them."

He shrugged. "You've put a lot of money into it, Marie. I'm grateful. I guess I'll roll with you on that one."

Crazy life, crazy love! He thought she only cared about her investment. She patted his shoulder and started to line him up with the facts of life.

Only they were coming to the Row now, and his eyes began to glitter; he was cut off from her, dreaming about his invention, and she lost her chance.

ROBOT ROW looks best of all at night. Block after block of robot dealerships, on both sides of the street. The blaze and glare of lights, the talk, talk, talk and the trading and the selling.

The silent company, row on row of waiting robots, made to look like humans so they could do human's jobs. Made to stand outside on the lots to prove their strength against

weathering. Ugly metal robots, cute, human-looking androids, the robot salesmen with their hoarse voices, and, good-natured, back-slapping, their shrewd appraisal of the robots you wanted to sell, their easy, phony praise of their own stock.

The hopeful robot owners walking, peering, testing, hunting for a bargain, hoping for a steal, arguing, laughing, growling, complaining, moving from lot to lot, searching from face to face, the hungry-dollar look in their eyes.

The colored lights, the glaze and glare of carnival-like signs, the gay banners, the smell of light machine oil and ozone mixed with the smell of cheap hamburgers... Even the dirty-faced kids were unique along the Row, the kids who would someday be salesmen and Instigators and lot girls and mechanics—all darting around, trying to promote a nickel, trying to promote a dime—

"I know a robot belonged to a rich guy. It'll take you to where he hid his money..."

"Hey, buddy, I know a guy keeps them loving androids. Kind you go to bed with."

"Hey, sister, I know a Instigator who cuts a husband gambit. This Instigator cuts a sweet rock-and-roll for a lonely woman."

"Gimme a nickel."

"Gimme a dime."

Give me a dollar, a thousand, a million! Robot Row was made for making money; you could strike it rich on Robot Row, so Mother put a dollar in my pocket and send me on that big promenade—

THE KID and Marie were detained on the sidewalk in front of Infinite Money MacNoonan's lot by an arguing pair. An old lady pleaded with a Robot dealer. "I can pay next week. Please lemme have my robot back. I'll keep up the payments, honest, Mister."

"No."

"Mister, look, I ain't young. I can't earn much as scrub-woman. I got to have the dough my robot makes."

"Them as can't keep up the payments loses they robot, Lady."

The dealer went off and the old woman stood on the sidewalk on Robot Row, weeping. It's tough to lose your last robot in your old age. When you've paid those rough payments so long...

The Kid looked at Marie with that lecture look, but she hurried him along.

At Honest Harry's lot a young couple stood transfixed, silent as the robot they faced. It was obviously their

first robot. Eyes shone, lips gleamed. Dreams of better living pyramided.

"Rotk and roll," said Marie. "Up and down. Trouble and joy—it's the Row and life, too, Kid."

The Kid frowned. "It isn't life; that's the trouble. It's just like the history of the old-fashioned automobile. At the turn of the Twentieth Century people still used horses and buggies. The automobile was a rich man's toy. Thirty years later most of the people in America, practically, owned a car. That's progress; that's the way it ought to be. Right now robots are rich men's toys, in effect. The poor can't keep up the payments, due to the inefficient way we instigate 'em."

THEY FOUND the Kid's android in the Instigator's room, poring over some books. "That's how I use my practice robot," the Kid said proudly. "He reads books and collects facts for me; he saved me a lot of time on basic research on my invention."

While the other Instigators use their robots to play poker and fight in the matches, thought Marie. The Kid deserved to succeed. She choked up with pleasure at his young seriousness; she was in so

deep that she even got a heart-tug out of watching Kid Two that looked just like the real Kid.

But there was no time to moon. First he had to hook his camera to Kid Two for protection. Then she had to get him out of town, because if the Guild decided to act they would move fast. It might already be too late.

The Kid seemed slow in getting the camera hooked to Kid Two. He was just finishing when the Night Instigator came rushing into the room.

"Hey," he called. "Hey, look at what I see. Here comes One-Punch-Card up the lot with a bunch of guys. What's he doing here so late at night?"

Marie gave a little scream. The Kid tightened his lips. One-Punch-Card had had a practice robot following them all this time.

"It looks like they decided to cut the Big One for me tonight," said the Kid.

The night man turned pale. "Excuse me," he said. "I gotta take that crotch-promenade." And he shot out of there on the men's room gambit, which is a good place to be when trouble starts.

Marie felt her heart thump. She had to tell the Kid, now, tell him she loved him. "Kid," she said, "I just wanted you to

know—I'm with you—not because of the money—"

But she'd been on the receiving end of adoration for too many years to give out with it herself. She could say no more. She stopped and looked at him, trying to say it with her eyes; then the Instigators came in.

ONE-PUNCH-CARD faced the Kid. His brow was dark; he bit down on his pipe and sucked at the empty bowl. "I heard you made a robot dance," he said.

The Kid was standing now, and his android, Kid Two, moved in front of him, camera mounted on his shoulder, held by a strap. "That's right."

"It's progress," shouted Marie. "You can't stop it. You'd better not hurt him."

Moe, O'Brien's killer, moved forward facing the Kid's android.

"You'd better leave the room," said One-Punch-Card to Marie. "There'll be blood, and we marry tomorrow. Tomorrow's your wedding day, Marie, and you don't belong here."

Marie screamed and threw herself on One-Punch-Card. She was hysterical, and, O'Brien blasted her on the point of the chin with a sailor's salute and she fell away.

"Always the gentleman," said the Kid scornfully.

"Tomorrow we're going to get married," said One-punch-Card; "nobody says I can't hit my wife if I want."

Then he cried. "Track, Moe," and Moe moved in for the fight. The other Instigators crowded forward, not cheering this time, but silent and grim, because this was the Big One, a life and death struggle.

The two robots met. Kid Two grappled with Moe who had a knife. Moe moved with his big weight and shifted. Kid Two followed him, tracking, and you could hear the clicks in Moe as he went around, trying to get at the real Kid who moved behind his robot.

Down went Kid Two and the real Kid faced Moe with the knife.

"N e b u c h a d n e z z a r!" screamed the Kid, and Chess Player Gonzales laughed a hysterical laugh, and Confetti Macready had to stomp on his toe for silence.

MOE KEPT on coming at the Kid. The Kid weaved and ducked and then Kid Two was back in there, shoving big Moe off track. Moe clicked angrily. He didn't try to knife the android because One-

Punch-Card had cut around that.

Instead Moe did a half drop-bottom and got his weight under him and boosted into the Kid's android. Kid Two went flying towards the window and crashed into it and went right on through, dumped into the cold and the slush of the lot outside.

The real Kid spun around trying to avoid Moe. Marie O'Connor came to with a whisper and moved just as the Kid back-tracked. The Kid stumbled over her and fell back; Moe moved in.

Marie screamed and One-Punch-Card yelled, and then Marie was up in front, throwing herself on Moe with her arms stretched out wide and her head thrust back towards heaven.

The knife plunged in easy, ripping her fur coat and dress and centered on her round, jolly left breast. The knife went in deep and cut the life out of her with the warm blood spurting down the arm of the robot, Moe.

She gave a surprised gulp and fell to the floor with a free-and-clear gambit and living was over for her.

Moe stood uncertainly; then another input card clicked into place, and Moe turned to One - Punch - Card. "Beer? Sandwich?"

THERE WAS never a funeral like the funeral of Marie O'Connor, daughter of Six-Input O'Connor, and the queen lot girl of Robot Row. All the Instigators came and they brought their practice robots and the silent robots sat in the chapel doing that silent rock-and-roll, swaying back and forth in unison until you'd think your heart would break.

Dirty Card Nelson, who cut the cards for the prostitutes' robots and had a way with girl androids, cut the funeral solos and he overlaid them in three relays so that as each of the favorite funeral songs were sung, there was a haunting echo behind.

And as required by custom, Marie Two—looking like the real Marie—sat beside the casket and looked real pretty among the flowers, smiling and nodding and doing the hail-and-farewell gambit.

It was a beautiful funeral and when the robots picked the casket up and did the slow promenade, strangers were seen to burst into tears.

They walked her up Robot Row, a special dispensation having been granted by the police, and at every robot lot they had a black-clad android standing at the curb and crying in that weird, metallic

voice that breaks you up because it's so emotionless, the long - gone - from - the - hills phrase. "Sooooo Lonnngggg, Marrrrieeeee!"

Then all the Instigators and as many others as could crowd in went back to the *Golden Gambit*, in the back room where the Instigators always went.

ONE-PUNCH-CARD sat at his favorite chair. He wasn't saying much. His four practice robots stood mute against the wall. One-Punch-Card was staring out past things, thinking of all that had been and wouldn't be any more, the rise-and-shine and the round-the-mulberry and rowing the boat and walking-that-robot-back-home.

The Kid would end all of that now with his invention and they couldn't stop him, because they had a great tradition—you couldn't cut the Big One for the same person twice.

And they had another. No Instigator ever went to jail for murder, because it was degrading to the trade; but the Police had a warrant out for One-Punch-Card today for murder.

The Dit-Dot Kid came in, looking very pale and young and thin and took out his hand punch. He looked inquiringly

at One-Punch-Card.

"Marie Two," said O'Brien.

The Kid cut the card. "I'm sorry," he said softly, "but you can't stop progress."

"Doesn't matter," said One-Punch-Card. "You've taken away all the old things. I don't care."

The Kid fed the card to Marie Two.

The sunlight, thin as an electric light bulb fading, touched the dirty snow outside and made the Row stand out cheap and raucous. The earth seemed old.

Inside the *Golden Gambit* One-Punch-Card O'Brien, the

greatest Instigator ever to lay hand to punch raised his arms and embraced Marie Two, the robot, now with the final steel knife-kiss.

It seemed for a moment as if everything hung together in an agonized gasp for life; and then the sun went down and the lights came on, and buying and selling along the Row began its noisy way. But inside the *Golden Gambit* the Instigators moved into a new, queer unrealness, for they knew their day was done. You can't stop progress.



NEXT TIME AROUND

Ed Emsh returns with a simple and moving cover for Clifford D. Simak's short story, "The Spaceman's Van Gogh." It's an unusual story, with a theme I've never seen before in science fiction, and the kind which brings in hot letters both pro and con—but which won't, I think, leave you indifferent.

Milton Lesser's, "Through A Glass Darkly" was written some time before the matter of the President's health was brought so dramatically to the public's attention, so is timely only by accident. His solution, which takes place some time in the future, is a fascinating one.

L. Sprague de Camp's article on mythological backgrounds was crowded out of the present issue; we'll try hard to get it in the March number. Those extra pages dazzled me into planning far more material than could get in.

ALFRED BESTER'S

"The Demolished Man"

A Review in Verse
by Randall Garrett



*Those who have read the famous Bester novel will recall that, in order to give an impression of future-ness, the author employed various shortcuts in spelling. Thus, the word "and" and the sound "and" were both represented by "&". Other symbols on the typewriter keyboard were used to denote sounds at the beginning, end, or in the middle of words, such as "8" for "ate"; "@" for "at"; "¢" for "sent"; "\$\$" for "dollars", and numerals wherever possible. Mr. Garrett has not hesitated to make puns upon this principle.
P.S. "*" reads "asterisk", "(" reads "parenthesis".*

In the far & distant future—you can pick the d8 2 suit your-
Self, the author, Mr. Bester, doesn't specify the year—
There's a fellow named Ben Reich, a rich investor who's
no piker
Who has dreams about a Faceless Man in nightmares
odd & queer.

Craye D'Courtney is his rival. Says Ben Reich: "While he's
alive, I'll
Never rest, so I must rub him out the best way th@ I can!"
But, according 2 report, neither Ben Reich nor old
D'Courtney
Knows the other well enough 4 Ben 2 h8 the older man.

Now, despite his wealth & power, Ben Reich still does not
see how ar-

Ranging old D'Courtney's death can be achieved with
grace & ease.

If he gets in2 a mess, perception by an expert Esper
Will eventually happen, 4 these lads are thick as fleas.

But since Reich remains determined 2 extermin8 th@
vermin, d-

Rastic action must be taken 2 make sure he won't get caught.
So he calls Augustus T8, a doctor who, we find, is r8ed
As a 1st Class Esper Medic. Reich is sure he can be bought.

"Gus, D'Courtney is a bird I rather think I'd like 2 murder,
& I'll pay an even million if you'll help me kill the slob!"
T8 says: "I don't like it, still you never know—an
even million?"

Th@'s an awful lot of money, Ben; I think I'll take the job!"

Next he needs some brain protection from the Espers'
keen detection;

Just a song th@ he can think of so they cannot read
his mind.

So he calls a gal named Duffy, who is just a bit of fluff he
Knows, who has a music shop th@ carries songs of
every kind.

"Just a song with rhythm in it?" Duffy frowns & thinks
a minute.

"Well, we have all kinds of songs, but if you simply
must have 1

Th@ keeps running through your head, the best we have is
'10sion, said the

10sor, 10sion, apprehension & disçion have begun!" "

Now the fireworks really start; he hears from T8 about
a party

At the Beaumonts'. Craye D'Courtney will be there without
a doubt.

Ben Reich packs his g@ & goes there, smiles @ everyone
he knows there,

& sneaks up 2 old D'Courtney's room when all the lights
are out.

Craye says: "Ben, I'm sick & feeble!" Says Ben Reich: "You
can't make me bel-

Give a word of all th@ guff!" & then he shoots him through the head.

But his planning's all 4 naught; around comes old D'Courtney's daughter, & she grabs the g@ & runs off when she sees her father's dead.

Now comes Powell, a detective, whose main job is 2 collect ev-

Aders of the law, who ought 2 know th@ they can not succeed.

He's an Es% by the police 2 peep @ all the people @ the party 2 determine who has done this dreadful deed.

His lieu10ant, known as \$\$on, is hot beneath the collar.

"What's the motive? Where's the witness? Who's the killer? Where's the gun?"

Ben Reich's mind cannot be read, the best I get is: '10ser, said the

10sor, 10sion, apprehension, & disçion have begun!"

"It's a tough 1," murmurs Powell, "& I really don't see how I'll Get the evidence I need 2 take this murder case 2 court. & I may be wrong, but still, I really think Ben Reich's the killer.

If he is, 2 take him in will prove 2 be a bit of sport."

Ben says: "This'll be a b@tle, & I'm much afraid the f@'ll Soon be in the fire unless I find the young D'Courtney dame."

Likewise, Powell's biggest worry is 2 get his hands on her, he Knows he'll really have 2 scurry, 4 Ben Reich's goal's just the same.

Babs D'Courtney is loc8ed by Ben Reich, but he's 2 l8, a d-Ame who's known 2 all as Chooka tells friend Powell where she's @.

Ben Reich's chances would be gone, except th@ Babs is c@@@onic,

& the 3rd° can't make her tell where she got Ben Reich's g@.

Powell still has 1 more chance. A Reich employee has the answer

2 a note Ben sent D'Courtney 2 conclude a business deal.

Powell's sure th@ Ben Reich's motive 4 the murder's in this note, he v-
Ows 2 get it from this Hassop, even if he has 2 steal.

Then, 2 Powell's consternation, Ben Reich goes 2 a space station

Known as Ampro, a resort with tropic jungles grown inside. Ben goes in with Hassop. "Now I'll have 2 find them," mutters Powell.

"Mr. Hassop has gone in2 th@ mor* his hide!"

Since he knows th@ Ben won't pass up this big chance 2 murder Hassop,

He & several other Pee%er Ampro 4 the search.

But when the note's collected, it's not what the cop expected, & the case just falls apart, which leaves poor Powell in the lurch.

Powell mutters: "I'll get dirty! Though Ben thinks he can't be hurt, he

Still has dreams about a Faceless Man and wakes up screaming screams."

Espers of the 1st Class r8ing start their minds 2 con8ring— Ben begins 2 see the Faceless Man come stalking from his dreams!

Powell has the famed "last laugh"; he drives poor Ben completely daffy,

& they take him 2 a nuthouse, where he's out of Powell's hair. Though they've gone and caught the villain, I'm inclined 2 think it's still un-

Necessary 4 policemen 2 be quite so damned unfair.

There's a part of the plot I completely forgot

I'll insert it down here, if you like.

Craye D'Courtney & Barbara, respectively, are

The (ter of Reich.



*Sometimes the flaw in a great plan
is so obvious that no one sees it.*



SHRINE OF HATE

A Fable of Futurity

by **GEORGE HUDSON SMITH**

THE STAR ship *Deliverance* orbited once around earth before it pointed its nose toward the distant stars. In its control room three men stood looking for the last time at the birth-

place of their race. Sadness and sorrow swept through them as the atomic flames swept over the once green planet turning it into a radioactive cinder.

"The swine, the filthy swine!" said Richard Emery, Captain of the *Deliverance*.

"To think that they would use the science that we taught them to destroy us!"

"Yes, science was our downfall," agreed Robert Costello, religious leader of the group. "When we first went to Venus, the Gobar were nothing but pale-faced dreamers, unaware that Earth or the stars existed."

"Pale-faced dreamers...but they sure learned fast," said Irwin Summers, a brilliant young sculptor and artist. "Who would have thought they would strike with such fury just because our government decided they must be destroyed?"

"No one did except Rev. Costello," replied Captain Emery. "It was his foresight that enabled us to save what we did."

"Yes, I knew it," Costello said, "I knew it because I knew them; I understood them. I lived among them and I hated them. Hated them because they refused to accept things that were better for them and hated them for their refusal to accept our true religion. I knew also that they hated us, despised us for disturbing their dreams."

"I hated them too," Summers admitted. "Especially when I found that the least among them was a better sculptor than I could ever hope to be. I hated them be-

cause their art and literature was superior to the art and literature that I love."

SHAKING with fury, Costello pointed to the flaming mass that had been Earth. "Look at our world! Look at what the Gobar did to it with the science we taught them. Look at it, my friends, and keep your hate a living thing."

"Yes, yes, we'll remember!" the other two agreed.

"We'll do more than just remember," the preacher raged on. "We'll build a Shrine of Hate here in the ship. Since we are the only adults to survive, we must build a Shrine and teach the three hundred little ones back in the nursery to hate the Gobar as we do."

"Good, good," the Captain said. "We'll do it. We have samples of their art and literature and you, reverend, can write their history and all about their dealings with us."

"I'll write it and the truth will blaze forth and our children will read it and hate them when we are gone." Costello turned to Summers, "and you, my friend, must create your greatest masterpiece. Pour forth your hate into the most magnificent statue you have ever done. Make it a statue that will embody all the evil essence of

the Gobar so that our children can see it for themselves."

CAPTAIN EMERY set the course for Alpha Centuria III, an Earth-type planet, and the ship broke free of its orbit around their once beautiful home. This done, he joined the others in creating the Shrine of Hate but, being a scientist there wasn't much he could do after collecting the various artifacts of the Gobar. He spent more and more time staring out the ports in the direction of Earth and eventually died of a broken heart.

Robert Costello devoted his time to writing the history of the Gobar and of their dealings with the Terrans. He wrote it truthfully, as he had seen it. When it was done he was an old, old man and he laid it gently on the Shrine of Hate and died shortly thereafter, longing to see once more the objects of his hate.

Irwin Summers worked on his masterpiece, pouring all the hate he felt into his fingertips as he shaped into a statue the image of the Gobar. He paused sometimes to look through the one-way glass ports into the automatic nursery where the three hundred babies were becoming children under the guidance of the robot nurses. As he watched them playing, care-

free and happy, his hate against the Gobar would mount and mount for depriving these little ones of their rightful home. He hated with such intensity the figure he was creating that when it was done and placed in the place of honor in the very center of the Shrine of Hate he was drained of all emotion and in a short time died for lack of the will to live.

As the ship neared Alpha Centuria III the automatic pilot took over. Other automatic devices unlocked the doors of the giant nursery and the three hundred children, now become young men and women, poured forth from the center of the ship laughing, talking and looking about them in amazement.

To them the ship was a marvel of varied wonders and they explored them all. The one they least understood was the Shrine of Hate. They looked at the art of the Gobar and found it good. They read the history of the Gobar and not knowing of Costello's hate, they found none of it and considered the Gobar an estimable people. They looked on the face and figure of the Gobar that Summers had created and found it beautiful beyond belief. And so naturally they worshipped the Gobar.





READIN' and WRITHIN'

Book Reviews by Damon Knight

RE-BIRTH, by John Wyndham. Ballantine, 35¢.

This is John Wyndham's third novel, although in a previous incarnation he wrote several more. The new Wyndham—who, in 1949, "broke a bottle over his bows... and started in" afresh—has turned out to be something remarkably like a new H. G. Wells: not the wise-old-owl Wells, more interested in sermon than story, but the young Wells, with that astonishing, unaccountable, compelling gift of pure story-telling.

Written in the first person, like "The Day of the Triffids" and "Out of the Deep" (and like much early Wells), this book introduces us to the most believable After-the-Atom society on record. It's a rural society, a world of almost-frontier farming—not very exciting, except for occasional raids by the outcast Fringes people—quite small and safe feeling, a world of earth and sunlight. To young David Storm, who grew up in it, there's nothing extraordinary in

this world's ultra-Puritan religion, or its preoccupation with mutations. Destroy people and animals who have an extra toe, or the wrong color of hair or skin? Certainly! Doesn't the Bible say, "And God made the beasts of the earth after their kind, and the cattle after their kind, and everything that creepeth upon the ground after its kind..." and, "God created man in his own image..."? And yet, equally naturally, farmers are reluctant to destroy a valuable animal, or a field of grain, that's only a *little* different...

A heresy: *Is* the description of the Norm that's recited in church on Sundays, the authentic description of man as he was before the Tribulation? How can anybody know?

It's a vital point to David, for the first time, because of an accidental discovery: his small girl friend, Sophie, has a sixth toe on each foot.

Here's all love, and all morality,

compressed into one aching question. It's sharply real, because the people and their world are real. These first few chapters have the genuine autobiographical sense—that Wellsian retrospective clarity, the torment of writers who can't do it themselves.

More's the pity that Wyndham, for once, failed to realize how good a thing he had. The sixth toe was immensely believable, and sufficient: but Wyndham has dragged in a telepathic mutation on top of it, has made David himself one of the nine child telepaths, and hauled the whole plot away from his carefully built background, into just one more damned chase with a rousing cliché at the end of it.

Wyndham's unflaggingly expert writing, all the way through, only proves that there are no exceptions: this error is fatal.

It's the same trap into which Lester del Rey fell with "For I Am a Jealous People," and Margot Bennett with "The Long Way Back." One forest is like another forest, one chase like another chase, one rescue like another rescue. Those who want to read stale derring-do don't have to come to science fiction: back issues of pulps, at three for a quarter, are foundering full of it. Crooks chase man and girl who Know Too Much; lawman chases badman; over and over and over; why else do you suppose the pulps died?

Del Rey's story was in the church where the aliens installed their God; Miss Bennett's was in Africa; Wyndham's was on the farm at Waknuk. Each threw his story away (del Rey to pick it up again, but almost too late), to grasp at movement for the sake of movement.

A rolling story gathers no meaning. Most of the frantic physical

action in science fiction, of which sophisticated critics rightly complain, is no more than a nervous twitch.

Let us sit still, and unroll our mats, and tell our tales.

THE MARTIAN WAY and other stories, by Isaac Asimov. Doubleday, \$2.95.

The three short novelets which fill out this volume—"Youth," "The Deep" and "Sucker Bait"—seem to me third-rate Asimov, but it hardly matters: the long one, "The Martian Way," is surely one of the best science fiction novellas ever published.

The story's taking-off point is simple: If no miracle fuels or propulsion systems come along, but Mars is to be colonized anyway, then it will have to be done with step rockets. A-B-C. All right, then what happens to the discarded steps—hundreds of thousands of tons of salvageable steel? Asimov's answer: they drift on out across the Martian orbit, until Scavengers in tiny two-man ships come out to get them.

The drama of "The Martian Way" is in those ships. Asimov, writing compactly and with enviable control, makes every phase of them intensely believable—the irritation that grows in the cramped quarters, the squabbling "Scavenger widows" at home, the monotony of waiting, the excitement—like hooking God's biggest fish—of a fat strike.

A lesser writer, fumbling for something to say, would have made these men little tin heroes, tight-lipped and glint-eyed, with shoulders from here to there. Asimov's characters are good-natured, no man, unextraordinary, wonderful joes.

And a lesser writer, dealing with the long voyage to Saturn which

turns this story from a vignette into an epic, would have marked time with mutinies, sprung seams, mold in the hydroponics tanks and Lord knows what all else. Asimov, instead, has rediscovered the mystic euphoria of space travel—and its beauty. Of those who have written about this imaginary journey, how many others have even tried to make Saturn glow in the reader's eyes like the monstrous jewel it is?

When you read this story, if you haven't already, you'll realize how much there is of heroics in run-of-the-mill science fiction, and how little true heroism. Asimov will make you feel the distances, the cold, the vastness, the courage of tiny human figures against that immense backdrop.

Good heaven, what a George Pal production it would make!

THE FITTEST, by J. T. McIntosh. Doubleday, \$2.95.

Beware books published in June. This is the season of the hammock novel, the month when publishers feel their customers are too dazed to notice what they are reading, or care. These works are useful for lighting fires and propping table legs, and for damned little else.

In this one, veteran hammock writer McIntosh would have us fall dazedly under the impression that the world has been overrun by intelligent cats, dogs, rats and mice. These things are called paggets after their inventor, or pacats, padogs, parats, and pamice. Dazed already? Good.

The hero, a relative of the ill-famed Paget (Paget—paggets—get it?) has been hounded out of America by disgruntled mobs, and has taken up residence in a deserted French countryside with his beautiful but bean-brained wife, (deep breath) who, as the

story opens, has just got pushed out a window to her death by paggets. Her husband, grieving in the most perfunctory fashion ("I'm no sentimentalist"), walks to the nearest village, where he finds the gendarmes waiting to arrest him for murder. This celerity on the part of the French police is never explained. Anyhow, there the hero is in jail, and this gives him the opportunity to be rescued by (I do not hesitate to say) the most improbable French-English girl in fiction. This is the heroine.

Well, they go to England and join up with some other people on a farm—everybody talking incessantly except one fellow who, for comic relief, puffs on an empty pipe and says nothing. Relief is the word, too. Now it seems there is a neighboring village full of scoundrelly gypsies, and a protracted cold war ensues.

Protracted, did I say? Infinite boredom, indefinitely prolonged. You see, the poor dumb clod of an author has written himself into a corner: there is nothing at all to do with his plot except to bring the war with the gypsies to a boil and finish them off; but he's still got half the book to go.

Some nonsense about a renegade gypsy helps to pad out the intervening pages, as also some *really* pointless nonsense about a dog, and the hero's endless, vaporous vacillations between two girls named Ginette and Eva. Eventually the back cover is a proper distance from the front—down go the gypsies, and bang, down comes the curtain. If you're not asleep by this time, it's your own fault.

POINT ULTIMATE, by Jerry Sohl. Rinehart, \$2.75.

Q.: What does the name of this book mean, Daddy?

A.: Point Ultimate? Darned if

I know. Let's see, a point is a dot, and ult—

Q.: Well, never mind. Gee whiz. So how does the book start?

A.: Once upon a time, along about 1995, there was a handsome youth named Emmett Keyes, and he lived on his Daddy's farm in Illinois. But Emmett was very unhappy, because everybody was so poor, and the Enemy and the Commies had taken over his country—

Q.: The Enemy and the Commies?

A.: That's what it says here. Well, anyway, the Reds had taken over back in 1969, and—

Q.: How they do that, Daddy?

A.: First they dropped big H-bombs on Washington, D. C., and Chicago. Then when the President went to drop H-bombs on *them*, he found out the Enemy had an *impregnable barrier against aircraft and missiles*. It says right here. Like a wall the planes and bombs couldn't get through. You see?

Q.: Sure. A force field. Over the whole continent of Asia, Dad?

A.: I don't know. I guess so. Now it seems young Emmett was the only one that was immune to the awful plague the Reds had infected everybody with, so they'd have to have booster shots every month, or else get sick, or go crazy, or even die. Boy, this is exciting! They—

Q.: Hold on a minute. Emmett was the only one that was immune?

A.: That's what it says.

Q.: Okay, I just wanted to get that straight.

A.: Yes. Well, and besides that, the Commies made everybody wear identity strips under the skin of their forearm. See, these are not the same as the identity bracelets, later on—those are under the skin

and all, too, but around the *wrist*.

Q.: Uncomfortable as the dickens, huh, Dad?

A.: You bet! Well, young Emmett wanted to fight the Enemy, anyway, so he left home and went looking for gypsies. Well, sir—

Q.: Whoa. Hold on. Just a minute. He went looking for gypsies?

A.: That's right. See right here? Gypsies.

Q.: Why?

A.: Well, because he had always heard the gypsies were immune to the plague, you see, and could travel around without—

Q.: Whup! Didn't you just get through saying—? Oh, well, why bother? Clear ether, Dad—toe in and blast ahead.

A.: Okay. Well, he walked along the lovely fields in the sunshine, and by and by he came to a beautiful farm. Oh, it was pretty. New paint *all over*, and tended just *so*, Emmet never *saw* such a pretty farm! Well, he was pretty thirsty, so he walked up and asked Farmer Tisdail for a drink of well water. And what do you think he found out?

Q.: What?

A.: Why, jolly Farmer Tisdail was a mean old collaborator who tried to kill Emmett with a wrench! Gosh! And so Emmett took his hunting knife and cut Farmer Tisdail's guts wide open—served him just right, too! Then he and gloomy old Mrs. Farmer Tisdail had a nice chat over her husband's body while he washed the blood off his hands; and they made speeches to each other; and then she told him the sad story of her life; and then she gave him a brand-new shiny sleep gun and a lot of money, and sent him happily on his way.

Q.: That was the farmer's wife, that did all that?

A.: No, his widow. So then Emmett met some jolly young people in the woods, but they wouldn't tell them anything, and he wouldn't tell them anything *either*. They just made speeches. So they let him go, and—

Q.: Just one question. Dad. If there don't nobody tell nobody nothing, what was the point of them meeting at all in them woods?

A.: Let me go on to where he gets captured by the Enemy, a horrible fat man named Gniessin who lives in a villa—

Q.: Gniessin?

A.: You heard me, Gniessin. — in a villa with a bunch of robots and a horrible cook and a nice, nice doctor that used to be an abortionist and takes done, and they have wild parties every Saturday night— Say, listen, I wonder if this is a book for you, after all.

Q.: Yeah, yeah, so?

A.: Hm. Well, it does get pretty disappointing here, at that. So anyway, Gniessin just happens to die in the steam bath and Emmett cuts Gniessin's identity bracelet out of his wrist and sticks it into his own wrist, and—

Q.: He must be some surgeon, this boy Emmett, hah?

A.: No, no—he just hacks away with a piece broken bottle, and then—

Q.: You mean he hacks through all those veins in the wrist, and doesn't bleed to death? Hoo boy!

A.: As a matter of fact, Mr. Smart Aleck, this is only the first time. Later he does it again, and—

Q.: Now I can believe anything. Okay, go on to where he flaps his arms and flies away, Dad.

A.: No, he steals a plane, see, and gets away, and *now* guess what? He finds the gypsies!

Q.: Go on.

A.: Yes, really, he does! So then he flashes this big roll of bills in the fortune teller's tent, and so the patriotic gypsies knock him on his head, but then he convinces them he's all right, and joins their carnival—

Q.: Their *carnival*? Dad, you mean carnies, not gypsies, right? Gypsies don't—

A.: Yes, they *do*, too. And it turns out, these gypsies are the same ones he met in the woods that time and they have an underground railroad where they sneak off pregnant young girls that the Commies won't let have babies, and— *Aha!*

Q.: Aha?

A.: They sneak them off to Point Ultimate. That's what it means. The last point on the underground railway, you see? It means the End of the Line.

Q.: So then why don't they call it that, huh, Dad?

A.: Never mind. They all know a lot of Latin, those gypsies, is why. So then, the Enemy capture Emmett again and try to make him tell where this Point—

Q.: Listen Dad?

A.: Umhm?

Q.: You remember what I said about those kiddie comic books you brought me?

A.: Yeah. I ought to wash out your mouth—

Q.: Well, I take it back. Let's read about Cinderella and the mad scientist some more, shall we?

A.: Right.

THE OLD DIE RICH, AND OTHER SCIENCE FICTION STORIES, by H. L. Gold, Crown, \$3.00.

Horace Gold is an amiable, prowling kind of a man whose taste in shirts adumbrates a pri-

vate hankering to be tall in the saddle. Interested, alert, alarmed, skeptical, ironic, anxious as a broody hen, he can no more keep from interfering with another man's story, once he owns it, than a saucer-eyed kid with a jam jar.

His gargantuan optimism, and the deeper pessimism that lies under it, have helped to make *Galaxy* the brilliant and sometimes bewildering magazine it is. His scorn for clichés has been a major influence in the modern growth of science fiction; his indifference to questions of content and conviction has done as much to vitiate the field. The same qualities have shaped his own work—5,000,000 words of it—confessions, fact detectives, radio scripts, comics, everything ...including a little science-fantasy.

As "Clyde Crane Campbell" he was writing tersely titled stories for *Astounding* in 1934; under his own name, a few years later, he turned up as the author of the first *Astounding* "nova" story, "A Matter of Form," and as co-author of one of *Unknown's* most convincingly frightening short novels, "None But Lucifer."

In all, and excepting the stories mentioned above (plus a few more which I'll come to in a moment), he wrote surprisingly little and surprisingly poor science fiction. At least, it's surprising to me; but here, in Gold's own collection, is a fair sampling:

One miraculous small masterpiece: "Trouble With Water." This warmly human tragicomedy about the Rockaway concessionaire and the water gnome is on many an all-time-best list, including mine.

Five good to passable short stories, containing chinks and flaws of various sizes. These range from almost-perfect light

entertainment like "Man of Parts" and "The Man With English," through near-failures like "The Old Die Rich" (a fine idea marred by incredible characters, and the most bloated climax-and-solution in recent memory), to the distressingly inconsistent and unpleasant "No Charge For Alterations."

Six totally regrettable potboilers: "Love In the Dark," "The Biography Project," "At the Post," "Hero," "And Three to Get Ready," and "Problem in Murder." The one common denominator of these stories is artificiality: the plots are mechanical, the characters shambling dough-figures.

Gold's working notes, appended after each story, are about like any other writer's mumble-sheets, but they do throw some light on why and where Old Pro Gold went wrong. In at least one place, almost by accident, they evoke the very thing that's missing from the stories themselves:

THEME: Walking in dismal rain toward editorial conference, me without an idea in my head. . .worried sub-vocalization sticks in groove of old song about walking between raindrops. Feeling of elation—how about a man whom water won't touch?

There it all is, in fewer than forty words, and without any technical tricks—sympathetic character, problem, mood, setting and a lot more.

And there's the answer, too, in capsule form: the essential ingredient of fiction doesn't come from technique, or earnestness, or a dozen rewrites: it comes in the simplest and most natural way imaginable—when a writer honestly tries to tell what he knows and believes.

*Was there — could there be — any home
for a man like Reischer?*

STRANGER

by JIM HARMON

REISCHER turned back instantly when he heard the crash. He looked foolishly at the shards of the vase scattered over the living room rug. There hadn't been a table within three feet. Why did he have to set that vase in empty air?

Behind him he heard light footsteps and there was something tiny choking in his chest. He turned to face his wife. Alice stood in the doorway from the kitchen with a nickel's worth of apron over her summer print. There was sheen of perspiration on her face, but something cold was underneath. "Oh," she said flatly, eyes on the broken vase.

"Sorry," he said inadequately.

She managed a smile. "Just a vase. Silly. I'll get the dustpan."

He stood and began to clumsily pick up the larger pieces. Alice came up behind him and

stooped beside him. She whisked up the crumbs and dust and took them back into the kitchen.

As she came into the living room again, Reischer took her arm. He felt her flesh tremble under his hand. "You startled me, Don," she said in a small voice.

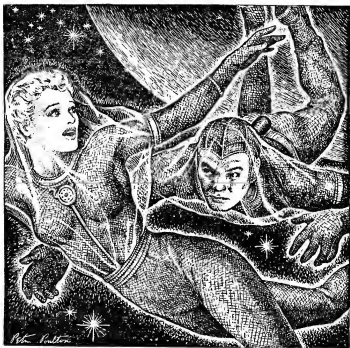
He lead her to the sofa. He felt the tightness inside of him reach out draw in the skin of his forehead. He seated himself beside his wife, continuing to hold her hand.

"Darling—" he began and smothered his words with a cough.

"Are you all right, Don?" Alice asked in concern. "Did I stir up some dust with—"

"I'm all right." He averted his head. "I'm all right, Baby. But I was wondering. How about a nice quiet evening at home... like we used to have."

She sighed. "Of course, Don; I know it's not much fun for you to go out."



THE BLOOD pounded in his head. Why did she have to treat him like an invalid? "That wasn't what I meant," he said carefully. "I just thought I'd like to have you to myself for tonight. You know, sit in the dark and listen to some of your long-hair records, hold hands... get to bed early."

Alice's face became set in firm lines. "You know how I feel about that. If you have to,

I can stand it. But there's nothing in it for me but frustration. I know you can't help. Your reflexes work like lightning in *everything*. I just can't keep up with you. You are like a flash in the night and you leave me without anything but tension and..."

"And desire?" he said.

She looked away. "I didn't say that."

Reischer stood up. "You don't have to. And it's a de-

sire I can't answer. Maybe when I'm older, I'll slow down."

Alice looked up at him. "I'm young *now*. I'm a woman *now*."

SUDDENLY he was pulling her into his arms. His mouth smashed into hers, and her lips moved against his, warm and moist and sweet. He held her so tight he knew vaguely that he must be hurting her. She twisted her face aside and breathed into his ear. "That was good, Don, that was good. But it isn't enough."

His arms felt clumsy and too long. He dropped them to his sides inadequately. Alice turned from him. "Hadh't you better take an oral antiseptic?" she asked quietly. "You kissed me."

He could feel her humiliation. He hadn't any right to make her feel unclean. No right in the world. Not Alice, clean and beautiful. Not him; he wasn't worthy of humiliating her, driving her with his clumsiness. *It had to stop.*

His mouth twisted. *Why be so noble, Reischer? What you mean is you can't take it. You can't stand being around her and not being able to have her, loving her and making her hate you.* "I'm going out," he said in a controlled voice.

HE COULDN'T stand another one of her looks of pitying concern. He opened the front door and slammed it behind him. Immediately he fell back against the door, coughing uncontrollably, tears blurring his vision. He clawed out his nose plugs and fumbled them into place. Gratefully he breathed air free of allergy elements. Reischer wiped his face and walked on.

His long, oddly easy strides ate distance from the streets. Houses became stores, green lawns were exchanged for gray pavement.

"Look at the way that funny man walks, Mama."

"Hush, Dickie. He's either drunk, or—"

Reischer hurried on, trying to modify his walk, then giving it up. Finally he used his full normal walk defiantly, only to find it was impossible to use under those conditions.

The sign of a bar flashed red invitingly. He needed something to wash the choking bitterness out of his throat. He knew he couldn't find what he needed in a glass but he turned in anyway.

The place was smokey and crowded. Neither a friendly hangout nor a clip-joint; it was just a cheap lonely saloon. It suited him fine.

He pushed through milling teen-agers, sailors and truck

drivers and their women, and leaned on the bar. A brunette up the line smiled at him. He grinned back and shrugged. The girl nodded pleasantly and turned to the other side. "Yessir. What'll you have?"

He hadn't considered that. "Scotch," Reischer said slowly. He wondered what it would taste like.

He studied himself in the mirror as the bartender poured the drink. He looked fairly average, not ugly, not overly athletic. He wondered if people could tell what he was. When he wasn't walking, that is.

"You sure, Honey?"

He grinned at the brunette over his shoulder. "*I know it'd be fun, but not tonight.*"

REISCHER picked up his drink as she nodded and moved on. He wondered how even a professional like her would react to him. He didn't suppose it would matter to her. It didn't taste good. The reaction would have to make up for the flavor. Funny, he thought. Twenty five years old and taking my first drink.

The barkeep leaned across to him. "You know, Mister, I had you spotted when you first came in."

Reischer took another sip of his drink. "I've heard that it's not hard to do."

The other man laughed. "I'm going to take those stories I hear from now on with the old proverbial grain of salt. Yessir, the old proverbial grain of salt. You guys ain't stuck up or sissies like some say. I guess it's like the things some people still said about Negroes and Jewish guys when I was a kid. Some people just naturally have to have somebody to pick on."

"I suppose—" Reischer began and halted abruptly. Could this be the reaction to the drink? His head was on fire. The pain in his chest, choking, smothering. He stood up gasping for breath. He grabbed onto the bar and looked in the face of the bartender whose mouth was moving as if it should be making sounds. The scene swam like a rain-soaked watercolor in an open air display. He let go of the bar and fell to the floor.

THERE WAS a terrible ringing in his ears as he became aware of his surroundings. He became dimly aware that the ringing was real. He was on a stretcher in an ambulance.

"Donald A. Reischer," a voice said above him, "Space-man."

"One of them, huh, Doc?" said a second voice.

"Yes. He should have

known better, drinking in a public place. After that purified, filtered air they get on those rockets and space stations they have practically no resistance to germs. This looks like tuberculosis and pneumonia. Fifty-fifty chance for survival, if he wants to survive; he must have been pretty desperate to drink in a public bar."

"Those guys are nuts in the first place, if you ask me. Going out there among all those planets and comets and stuff. But if they want to go Out There, they ought to stay there. We wouldn't get cases like this if spacemen would just stay in their place."

Where is the place of an Earthman who becomes a Spaceman? Reischer thought before he stopped thinking.

"Don," the voice said, "Don."

The voice had been saying that for a long time. While he had wanted to rest and sleep it kept calling him. He opened his eyes and said distinctly, "What do you want?"

REISCHER FROWNED. The white walls. A hospital. And Alice leaning over his bed. He remembered then. "Why didn't you let me die in peace?"

She blinked back the hurt. "I'm selfish. I wanted you to live."

"What for?" he asked. "I'll never be a husband to you."

She was against him, warm and sweet-smelling behind a nylon suit. "It's such a little thing, Don. Give me time. Give us time. We'll learn. A good thing takes practice."

"Maybe," he said, fighting for hope. "Maybe."

"It's more than that, isn't it? You talked about the people who made fun of the way you learned to walk in free fall, about feeling clumsy because you forgot once in awhile that there was gravity here and things wouldn't stay up by themselves, of your feeling of inadequacy because of your susceptibility to germs. Darling, you should have talked about them before. Don't you see? It takes time for people to adjust to things—for spacemen to adjust to Earth on rotation years, and for people to adjust to spacemen. There haven't been spacemen long. Give us all time. Human beings are pretty adaptable."

He put his arms around her. They weren't strong arms now, but it was satisfying to hold her. "Alice, I see something else. I've kept you out. Because you've never ridden a rocket or walked the Moon I thought you couldn't understand my problems. But now I think I see. As long as hu-

man beings are human, another's problems can never be beyond understanding and sharing."

Alice snuggled. "That high I.Q. of yours. Comes out even under drugs."

He didn't say anything

more. As he looked over her shoulder, he saw a cluster of stars in the corner of the window. And for the first time in many years, he didn't hate them.



THE LAST WORD



MONTHLY BOOSTER

Dear Editor:

I just finished reading your September issue and I decided to write you right away and tell you what I think of your magazine. It was the first copy of *The Original Science Fiction Stories* I have bought, and I must say it was great. The thing that attracted me to it was the cover. There it was, up on the newsstand rack, a science fiction magazine among science fiction magazines. Then I looked more closely at the cover.

Without even looking inside, I bought it and headed for home. Emsh outdid himself on that picture. The irony of his subject is exquisite. When I got home and read your magazine, I was again pleasantly surprised. Your stories have a refreshing difference that is delightful. All five were wonderful, especially, "The Oldest Man in the World". I buy *Astounding*

Science Fiction and Magazine of Fantasy and Science Fiction regularly, and I think you rank right up with them. One request—please become a monthly as soon as possible.

KENT McCLUNG,
Inwood, West Virginia

We'll gladly pledge that SFS will become a monthly as soon as possible, but I can't even guess when it will be possible. It may sound like an awful cliché to mutter about, "When the reader response indicates that monthly publication would be a reasonable risk"—but that's exactly what is required.

SHORT COMPLAINT

Dear Editor:

Both the July and September issues of SFS were very good. Most of your lead novels are fine, but the shorts just don't ring a bell.

The cover on the September SFS and the August *Science Fiction Quarterly* were good. I normally don't like Emsh's covers, but these two were about the most realistic I have seen, especially on the *Quarterly*. Keep that white background whenever possible.

The *Quarterly* sells more than any other pulp size magazine around here; however, if its size were to cut digest, it would probably sell a lot better.

The novel, "Perfectly Adjusted", in the July SFS was the best I've seen in a long, long time (and probably the best anyone's seen in a long, long time). "No More Barriers" was almost as good.

Please keep the letter department; I prefer it to the short story it replaces.

JAMES BURROUGHS,
Beaumont, Texas

Short stories any better this time? ... We'll keep the letter department if you readers will keep on sending letters; fair enough?

ADDENDUM

Dear Editor:

In your editorial "Trends in Science Fiction", you seem to have overlooked that Hugo Gernsback didn't neglect the sociological story. Back in 1933, there was quite a spate of tales based on Technocracy, and at least one editorial on the subject.

However, Gernsback never rode his sociological enthusiasms either as hard or as long as Campbell. He apparently picked up Technocracy when it looked as if the movement might play some significant part in national development, encouraged authors to speculate about it, then let the subject die out as interest in the movement died down, except for a small diehard minor-

ity—which still exists, so far as I know.

There was another Technocratic upsurge in the early '40s, I seem to remember, up to the time we entered the war, but it never really took in science fiction to any extent. A few stories appeared that were apparently based upon it—you ran one or two yourself, I think—but it never hit the stage of grim application, on the part of any science fiction editor, as did the later sociology, dianetics, and ESP fads.

JERRY CANDLER,
Rangeley, Maine

I had momentarily forgotten the technocracy flare in the old Wonder Stories when writing that editorial; thought of it later, but decided not to revise, since it didn't start a trend—while many of Campbell's enthusiasms have inspired far more stories than those that appeared in his own magazines.

FIND OF THE YEAR

Dear Editor:

I have before me the September issue of the re-titled *Future*. I haven't read the stories yet, but from experience I know they're the best to be had in your market, and then some.

The illustrations by Freas were so-so. Why didn't you spread them out more in the story?

Your editorial about the dialectic current science fiction is going through is interesting, if merely a restatement of conclusions arrived at long ago. (I guess every fan has to go over his collection and get it out of his system.)

The reviews by Damon Knight are typical. In other words, they're worth the price of the issue alone. If it were in my power, financial-

ly, to do something for science fiction, I would (next to bringing out the complete literary and artistic endeavors of Hannes Bok) establish a magazine with Damon in The Chair and a book, "A Critique of Hardcover Science Fiction" by same. The review of "Hell's Pavement" (Wow! Talk about huckster titles) was the most enlightening one I have read to date. But you didn't criticize it at all; you merely agreed and extraoplated on its meritorious ideas. I know that in no other fiction field but science fiction is the idea most predominant; however, that does *not* exclude the handling from consideration.

Finally we come to the letter section. The first three were interesting; what really got my attention was the one by Mr. Kirsten. I would advise that you hasten immediately to this fellow's abode, perch gratefully at his feet, and interview him. He is the find of the year! He is the typical science fiction magazine purchaser. Those golden words, forever immortalized in your publication ("About your stories I have no complaint at all, they are nearly all very fine and I enjoyed reading them, I read them all and when I find a story I do not care for (not many of those) I just let it go because everybody has their own opinions and I'm sure that if I told you the stories I did not care for so much, why they would be just the stories that someone else said were the ones they enjoyed most.") sent tinglings of ancestral recognition (my father reads science fiction) running through me. On second thought, you're probably too late. I can see the other editors beating a path to his door. Gold in the lead with a lean and hungry look in his eye, the two other pulp editors close behind him. In fact, every-

body will be there but You Know Who (Goes There), even Tony Boucher, after a Plain Folks testimonial. 'Nuff said about that.

Oops, almost forgot the cover. Emsh is due for a nice long rest. Out of fantasy and science fiction. He should leave the planet yet; no, he should leave the galaxy. And even if he should return in the future, desirous of illustrating science fiction stories, he should only be allowed to make a quarterly appearance, though it probably won't be a startling effort. It's past midnight (yawn), that's why. Good night.

BILL COURVAL JR.,
San Diego, Calif.

Actually, my comment upon the handling of "Hell's Pavement" was summed up in the suspicions I voiced that the book had been mexpertly cut in the process of publication. It turns out that no cuts were made, so this must rebound upon the author as a case of occasional haste and lack of the care he showed in the earlier sections of the book. (I assumed—since I'd found that Algis Budrys' novel, published by the same outfit, had been brutally mangled by injudicious cutting—that Damon had fallen under the same meat-axe. May that be a lesson to me; I shall write on the wall of my study fifty times, You can't assume a goddam thing in the publishing business!)

I didn't dwell upon the aspect, simply because my own considered opinion is that the flaw, while there, was not a crucial one; that the strengths of the story far outweighed it—and the review had already gone to considerable length. One might, in addition, take exception to the sequence in "The Blank" if on no other grounds than that no description of what

lies behind a mystery built up so suspensefully can be other than a let-down; artistically speaking, it would have been better had "The Blank" remained unexplained. However, since I found that section quite delightful while reading it, afterthoughts seemed to me somewhat irrelevant. (Maybe this is one of the reasons I'm not as good a critic as Knight.)

If truth must be told, I found the Kirsten letter rather amusing myself, on the same grounds that you did. Would that we had 50,000 more readers like him—and then another 50,000 who didn't hesitate to let us know just what they didn't like and why!

SHORT BUT NOT SWEET...

Dear Editor:

Your September issue of *Science Fiction Stories* carried a novel entitled "No More Barriers" by Gordon R. Dickson, and in my opinion it is the biggest blob of nothing I have ever had the misfortune to read.

I have been an avid fan of science fiction for several years, and read every publication containing science fiction and fantasy stories, and I can duly reiterate the above statement to the fullest.

TERRY A. TWING,
San Francisco, Calif.

...AND ON THE OTHER HAND

Dear Editor:

I thought I was tired of stories about, ESP, but "No More Barriers", by Gordon R. Dickson, changed my mind completely. It just goes to show that no idea is stale when handled in a fresh manner—and this novel was not only fresh but also the best short novel of science fiction that I've read in many years.

Of course, you may think that I'm not too qualified to judge, but I haven't missed an issue of any major science fiction or fantasy magazine for at least a decade.

RICHARD CRANMER,
Kansas City, Kansas

Breathes there a science fiction editor who hasn't received pairs of letters in this tenor on just about every issue?



REAL LIFE STORY

Dear Editor:

I had the afternoon all planned.

After fixing myself a big plateful of sandwiches, I planted myself at the back door and set things up for a solid hour of watching the blonde next door mow the lawn. Today was Monday, and every Monday afternoon during the hot summer months she made a pretense at cutting the grass with a big power-mower, all the while parading back and forth in an abbreviated halter-and-shorts just like those you see in the lawnseed ad.

But today something went wrong. After half an hour at the back door, with nearly all the food gone, I began to wonder if she was going to make her weekly appearance. I had just about given up hope when she walked around from the other side of the house in a blue one-piece swim suit. Aha, I thought, all things come to he who waits.

However, much to my displeasure, she didn't bring out ye olde power-mower. Instead, aforementioned blonde got into her shiny convertible, backed out of the driveway, and tore down the street with a clashing of gears.

Nertz.

Well, I said to myself, there's always television. TV, the little box that has brought enlightenment, entertainment, and education into millions of homes, not to mention bad eyes, cranky children, and Pinky Lee.

I hurried upstairs and switched on the Cincinnati Redlegs ball game. Ah, I thought, with the great American pastime before me in all its glory, who needs one measly blonde?

Silence.

The Redlegs had a 3-0 lead over the St. Louis Cards with the visitors up in the ninth. Big Joe Nox-hall was pitching beautiful ball; the first two Cards grounded out. However, here began something that any Redleg follower knows by heart.

Big Joe walked Wally Moon, then hit Bill Virdon. I shuddered; things began to build up. Red Schoendienst cracked a single to right field, but a perfect throw by Wally Post held the fleet-footed Moon to third.

Stan Musial stepped to the plate, swinging his bat meaningly. Big Joe fired his fastball, and Musial

caught hold of the ball. I groaned and switched off the set as Big Joe's fastball disappeared over the left field wall.

By now, you're probably wondering what the heck all this has to do with *Science Fiction Stories*. Well, with no gorgeous honey blonde to watch, and the ball game gone down the drain, the only thing left for me to do was to read the September issue of your magazine.

I did, and liked it a lot.

I'm happy to see that you re-installed the letter department, but would like it a little longer, please. Your editorial and Damon Knight's book reviews are great, so I would advise you to keep them. Personally, I believe that Knight is the best science fiction reviewer that I have ever had the pleasure of reading.

As for the fiction, the top stories were Sam Merwin's "Day After Fear"; Milton Lesser's "Farewell, Mr. Ridley"; and Gordon Dickson's "No More Barriers". The other two follow in close order.

All in all, topped off by a truly great Emshwiller cover, this issue of SFS is one of the best you've ever given us. If all coming issues are as good as this, I'll give up the blonde next door (shorts and all) with no remorse whatever!

Now here (sigh) is a letter that has everything: sex, suspense, action, hope, frustration, and a happy ending. Just one suggestion, Kent—don't give up that blonde; get her to join you enjoying SFS. And, of course, she should have her own personal copies, don't you think?

RECOLLECTIONS

Dear Editor:

In your September issue of Sci-

ence Fiction Stories, I read a letter by Mr. Arthur Price regarding my grandfather, A. Hyatt Verrill. As Mr. Price surmised, my grandfather led a very active life until his death. About four years prior to his passing, Mr. Verrill led an expedition into Mexico. Besides writing to about the very end, he was in the Sea Shell business, and took an active interest in life all around him. He wrote way over a hundred books in his lifetime on just about every subject you could think of. He knew Zane Grey and Buffalo Bill intimately, as well as many other well-known personalities. At one time he owned a gold mine, invented a process of color photography among other things ...yet died in poverty.

Although my grandfather was known as Author, Painter, Explorer and inventor, he impressed people with his simple and dignified ways, rather than with his brilliance. Mr. Verrill had many hobbies, for he seemed to turn his work into hobbies, enjoying every minute to the utmost. The two subjects he discussed with me, most often, when I visited him were science or science-fiction and Indians; and so it was that I, too, became deeply interested in these subjects. I can remember my grandfather relating some of his experiences, which were rather hair-raising. He wrote many science-fiction stories in other magazines besides *Amazing Stories*; however, *Amazing Stories* probably published more of his stories of this type than any other single magazine. Unfortunately I do not have many of his books or magazines and have a rather difficult time trying to obtain them. One of my favorites of his stories was republished in book form in 1950, and first appeared about 1929. The title of the book is "The Bridge of



Light". In the book he indicates and explains the possibilities and powers of the atom. The book is very much up to date for 1950, so one can imagine how far ahead of its time it was for 1929. The story would make an excellent science-fiction movie; however, perhaps I am rather partial.

Two or three years prior to Mr. Verrill's death, he was in the process of writing his autobiography. I was fortunate enough to read a bit of it; it was fascinating and at times more unbelievable than fiction. I imagine that my step-grandmother Mrs. (Ruth) Verrill has this work and will publish it some day.

My grandfather always said that writing was one of the toughest jobs there was. I concur most heartily after writing a simple thing like this letter.

In closing, my comment regarding your publication is that I have found the stories interesting and amusing. But, as in all things at times, there seems to be a dry sea-

son of thought. You might be interested in knowing that the primary reason for my growing taste for fiction of the science variety is that herein is a field where canned thought has not yet reached. I find that today one is able to relax with science-fiction, solely because it is a thought-provoking, and thought-stimulating field. I often wonder what the world would be like without such stories, what inventions would be left uninvented, what kind of a social structure would the world have, where we would be today and what would we be doing. This might make an interesting story, eh?

If you have any questions, fire away; I may not be able to answer them, but will try, anyway. Guess I ought to close before I bore you all to death.

MICHAEL B. ELLIS,
New Orleans, La.

A good many collectors and fans would be interested in a checklist of Mr. Verrill's science fiction published outside of the pages of Amazing Stories with full information as to the titles of the magazines and dates, etc. And the same for fantastic stories which wouldn't qualify as science fiction, but were decidedly of the weird, supernatural, and/or fantasy variety—exclusive, that is, of mystery-terror tales.

WRONG GUESS

Dear Editor:

You can't do this to me Lowndes! You can't deprive me of my bi-monthly damon knight quota! For it is written, in the Big Book Up In The Sky...Thou shalt partake of damon knight at least once every other month.

It is a dirty shame that your pub-

ber saw fit to put the mag on second hand paper...really spoils the appearance...tsk...tsk.

Now, I'd be willing to bet that *Science Fiction Quarterly* has just seen its last issue...and then only *Starling* will be left...left to put out one more issue. The pulps have finally bitten the dust. And I can't honestly say that I'm not sorry—because I am. And I only hope that I am wrong in my 'wild guess' that SFQ shall not ride again.

In my opinion, *Science Fiction Stories* is one of the better sf magazines being published at the present time. This, I realize, isn't really saying very much...but take it for what it is worth. You are doing the best possible job that you can do with the material that is now available.

Sitting here wearing my Crisswell-skin cap I can say that in my opinion the all-fiction sf magazine has seen its last day for a few years. About the only magazines being published nowadays without letter-columns are *Galaxy* and F&SF, and *Galaxy* has a book review dept. in addition to Willy Ley, and Gold's editorials (incidentally, have you read the last two of them...the boy is reaching waaaaaaay out...he's just trying too hard) and F&SF just recently has acquired a sf film review by Chas. Beaumont.

Seems to me that a lot of the blame for the recent slump in sf mags belongs right on the shoulders of the eds themselves...let's take 'em one at a time. Campbell...the Poor Man is soooooo tired...he just keeps on keeping on...he needs a few months of sleep...maybe he'll feel better then. Gold...he would do well to take a nice long rest, too, and perhaps unfrustrate himself a bit by doing some writing on his own...with a typewriter and not with the red

pencil that he has been using so much of as-of-late. Palmer... weeeeeeeell I guess that it doesn't take much to see what is wrong with Ray...and the same goes for OW...can't Palmer afford to pay any writers, must he hack out every issue all by himself? Hamling is going to try to give us *action stories*...blood, guts, and thunder...a little sex and a little sadism, that's what we want! Browne...is also a member of the *Action Story* clan, and *Madge/Amazing/Fantastic* will doubtlessly garner the same rewards, whether it be acceptance from the Junior School Set or just plain old professional mafia. Boucher...well actually there's not much wrong with Boucher (and F&SF), in my humble opinion he edits the sf magazine right now; the only thing that irks me about his magazine are the occasional SOAP operas, much of the stuff by Merril for instance reeeeeeeeeceks of slickism. Oh...much perdone Kind Sir, I have forgotten to mention you.

Truthfully speaking, I would rather read SFS than either of the supposed top two (*Galaxy* and *Astounding Science Fiction*) your stories may not be as "polished" and your paper may be poor, and the repro on the illos much the same...but still the fiction is more readable than that of the aforementioned two. Also, you have fan departments; I believe that a hell of a lot of people would buy the magazine just for damon's book reviews.

I wish to urge the inclusion of fan magazine reviews in SFS. Me-thinks that they would be more in place in a bi-monthly magazine than a quarterly one, being as that they are too dated to be of interest to active fans and probably the issues mentioned would not be



available to fringe-fen who have decided to sub to a few zines.

WILSON BLOSKY,
San Diego, Calif.

All things must pass away, so obviously the time must come when Science Fiction Quarterly will have seen its final issue. However, we can state definitely that that issue was not dated November 1955!

You forget there are so many different science fiction magazines today that it becomes obvious that all are not slanted toward the same readers. Perhaps a few completists, who also read each and every issue, exist; but no one expects any given person to like them all. There's an audience for each different slant, and the question should not be, "Does so-and-so run to action stories?" but "Does so-and-so run good action stories?" And so on, all down the line.

HUNGRY WRITERS

Dear Editor:

I'd much rather contribute stories than fan letters to your mags, but it seems I can't have one without the other, so here goes:

The changes you've made in *Science Fiction Stories'* physical appearance of late have certainly turned it into one of the neatest-looking, most attractive mags in the field! My only carp is the cov-

Adventures in Space and Time

The Shape of Worlds To Come



- ★ Frank Kelley Freas presents a different cover, for an absorbingly different novelet, **WHY SHOULD I STOP?**, by Algis Budrys.
- ★ Harry Warner, Jr., offers a powerful novelet of an unusual tomorrow, **THINK NO EVIL**.
- ★ We invite you to read the special article, **SO HELP ME**, and then send your entry into our **CASH PRIZE CONTEST**.
- ★ Plus other stories and features, including Damon Knight's Book Reviews; Robert A. Madle's "Inside Science Fiction"; Randall Garrett's latest delightful parody, and a thought provoking editorial.

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er, where you persist in ruining those fine Freas jobs by hiding them behind your monstrous logo. Is it *really* necessary to announce the magazine's name in letters an inch high?

I like the inside of the book fine, both the way it looks and what's printed there. Glad to see deCamp back with an article. I grievously missed damon's book reviews, which are worth the price of admission by themselves, and hope you'll have him back in double supply next time around.

"Full Cycle" is probably the best in the issue, which is no surprise, I'm sure. But Simak's already gone over this ground amply in his "City" stories and elsewhere; he's already thoroughly explored all these characters and situations, and the whole story seemed curiously familiar. Simak's prone to doing this more than most of the other top men, because he's a man riding a Theme. That's all right with me, though.

The shorts were all competent jobs; I chuckled over the outrageous Winterbotham affair, and enjoyed Klass' short story about the best; nothing new, but smooth stuff with a good snapper on the end. However, it's the letter column which ought to get the gold star this issue. It seemed as if every letter was full of snap, crackle, and pop this time out.

Eric van Freihauf's letter is a good example of this. He's got a lot to say, and most of it is pretty sound. But he's dead wrong when he blames the lack of good material on the high rates authors get. Believe me, it ain't so.

His thesis is that fat writers turn out lazy stories, and skinny ones (like me) do all the first-rate work in the field. I don't think so, though he's partially right: in the days of the Boom (sob!) it was so

easy for writers to make a living that some didn't bother even to try to write deathless copy all the time. Some writers, that is. Plenty of the top men didn't slack off simply because they didn't have to work hard. Others did. They aren't selling, now.

But in 1955 we have a bunch of hungry writers. Only a handful of magazines are paying anything like the prevalent 1953 wordrate, and the scale goes down to *there*. But *can* a hungry writer take time out to dream up new slants, do research, come up with the new ideas van Freihauf is begging for? Try it, sometime.

It can't be done, not on low rates. Anyone writing full time finds himself on a treadmill where he never catches up with himself. It's not even a rat-race any more; it's a mouse-race, as Phil Klass says. You find yourself batting out stories for this editor or that, *stories you know will sell*. In other words, tried and true.

You don't see anything off-trail coming from us, anything unusual in theme and technique. We can't take the chance that it won't sell. In 1953 there were plenty of other markets; today a story has six or seven openings and that's it.

Who's at fault, Mr. Freihauf? I suppose the writers are, for being silly enough to get on the treadmill in the first place. But once you grant that, the fault lies elsewhere. It lies with the editors, who have their own firm ideas about What A Story Is and don't always leap for something different; it lies with the publishers, who madly insist on making money themselves and so have to cut word rates; it lies with the public, which doesn't buy every issue of every title on the stands and so boom circulation.

The best science fiction isn't pro-

duced by full-time writers, anyway; you can't save the world three times a week without getting a little weary of it. The best sf is turned out by people who know the field well, and love it, but are not dependent on it for steady cash. They can take their time on a story. Most of us can't.

I don't have any quick remedies, though I wouldn't mind if word rates and things eased up a bit. I wish people like van Freuhauf wouldn't make suggestions like this; it scares me to think that some people believe that writers are lazy and fat, and ought to have their word rates cut to make

them write better. If you get enough letters like that, maybe you will cut word rates.

Lord, if that happened I'd have to start editing for a living!

BOB SILVERBURG,
New York, N. Y.

I was aware of a similarity in feeling between "Full Cycle" and the "City" series; and having reading the collected edition of "City" not too long ago, the stories therein were still fresh in my mind. However, it seemed to me that Simak was throwing light on another corner of the basic idea, rather than repeating himself.

The Last Chance

(Continued From Page 5)

game by trading pawns. Their prime advantage, the utter disregard for human life, had been taken from them. The enemy was threatening to junk the whole game, rather than have half or three quarters of its population slaughtered.

The high priests of authoritarianism wrote off their greatest gambit and settled back to their more customary plan of infiltration, propaganda and all the other methods by dizing, treachery, hypocrisy

which freedom is replaced with "people's democracy." The hottest war had been avoided, but the cold war went on.

On February eighth, 1961, the President spoke to the people of the United States and of the world. He told them what had been going on for six years, what he had decided in 1957, what Congress had allowed in its secret session of November, 1960.

"Our cities are safe from attack," he said. "Our people

can breathe freely for the first time since the Soviet Union pulled ahead in the guided missile race. The cold war goes on, as it may for many, many years; but the madness of destruction which we faced is averted, perhaps forever. Each great city and important military target is guarded now by the newest weapon of human science, a weapon which must never be detonated, a weapon whose threat hangs over the head of every human being no matter where he lives on earth. The enemy cannot strike us now without striking himself with equal, fatal power. For, the EX-Bomb is not just the most powerful explosive on earth. It is the ultimate explosive. It is the nuclear chain-reaction explosive, which will turn the whole earth into fission material if it is ever fired. And each and every one of a substantial number of these ultimate weapons is triggered to fire if it is struck by the radiation of any of the nuclear weapons which Soviet Russia is known to possess. In short, if any known nuclear weapon strikes near any major city or prime military target in the United States, the life of this race of Man will have come to an end. The entire planet known as Earth will turn suddenly into an-

other, briefer Sun, will collapse, burn out, and there will be only eight planets where there were nine before.

"BY ACT of Congress, the government of the Soviet Union has been presented with full information pertinent to construction of the EX-Bomb. This was done to convince them that the danger is a real one. They have this day responded with assurances that their mission in the world is peaceful, and they have asked for a resumption of diplomatic relations with this country.

"We have now another chance, perhaps our last, to make known the principles by which we live—principles which are long forgotten in the Soviet Union and largely compromised even in our own land—the principles of individual freedom, life, liberty and property. We have a chance now to work again toward the greatest goal we know, the goal of freedom for every human being on this earth. To win that goal, we risk, every day of our lives now, this little platform upon which we live in the depths of God's space, this our home, this planet we call the world."



The Sociological Story

(Continued From Page 1)

The main trouble with such stories is that the actual events of history after their appearance so often made them appear feeble or absurd, so soon. When an author follows a given trend to its *ne plus ultra* he cannot but ignore the existing counterbalances to the trend he picks, even when he is not ignorant of their existence. Thus, stories, depicting a happy, peaceful society following the advent of socialism have been made ridiculous by our knowledge of what actually happened—the despotism of the USSR and the dreary inefficiency of the British experiment. Likewise, stories of happy days to come when the "Price System" collapsed and Technocracy triumphed were undermined by the staying power of our own economy and the Technocrats' inability to make meaningful and accurate predictions. Neither the socialists nor the Technocrats took into account the constant modifications that what we still call "Capitalism" has been undergoing during the past half-century. (Were any of the great 19th Century Capitalists to return to life and see the present, he'd waste no time in letting you know that Marxism had conquered America and that Capitalism was as dead as Chivalry.)

We know also, that the automobile, while becoming nearly as great a giant in every phase of our economic life as Dr. Keller imagined in "Revolt of the Pedestrians", (*Amazing Stories*, February 1928) did not bring about a profound physical degeneration in the

populace to the extent that only a few throwbacks are able to walk at all. And while neither the Scientists nor the Airman, as a class, have revolted and taken over society, to shape it nearer to the heart's desire (Who's heart? you may well ask.), such a revolt becomes less likely rather than more likely as time goes on. The experience of the last twenty years should have provided such an occasion, if either prediction had any valid basis, but no such behaviour in either of these groups has been noted—outside of a few members of the Scientific brotherhood who loved the ideal of internationalism neither wisely nor well.

STILL, THIS type of story can make good reading when it is not written as naively as some of the earlier examples and is not wedded too closely to topical events—where it does not take a passing fad as a definite social trend. Robert A. Heinlein's "If This Goes On" (*Astounding Science Fiction*, February, March 1940) is still a good story, partly because it is based upon something both more solid and more nebulous than political parties or economic ideals. That the human psyche does contain some sort of well—which, for lack of a better term we might as well be called "mysticism"—accessible to exploitation on a mass basis; that a revolution could be based upon systematic and scientific exploitation of this mysticism if other conditions were ripe; that political revolution is big business in

a technological civilization—all this has been confirmed partially by the experience of the Third Reich and more so by that of the USSR where Communism not only rules, but also functions as a religion. (Whether it coincides with Marx's or anybody else's theories of what communism is, or should be, becomes irrelevant to the fact that the Soviet State has the means to enforce its own definitions on all within its borders—and on too many without them.)

MORE RECENTLY, the Pohl-Kornbluth "Gravy Planet" (*Galaxy*, June, July, August 1953) the Damon Knight "Hell's Pavement", and Edson McCann's "Preferred Risk" (*Galaxy*, June, July, August, September 1955) have demonstrated the viability of this type of story when not too greatly limited in approach. There are strong enough elements of satire in the first two to overcome "withering" weaknesses, and the second has additional philosophical strength to add. The McCann novel might as justifiably be placed in the "alternate society" category; I see it as a "prophetic" story, however, since it deals with the possible extension of existing forces. Whether such a future likely is beside the point; the facts are that insurance has multiplied itself amazingly in our society and its range of activities continue to expand. (Contrast this with the utopias based upon the wish-fulfillments of tiny minorities which held no power at the time the stories were written.)

Many of the earliest examples of the prophetic or utopia story in science fiction were mainly concerned with putting across a message and converting readers to the "truth" contained. "Looking Backward" is virtually unreadable today; on the other hand, "When

the Sleeper Wakes"—with all its outmoded technology and naive yesterday's futurama, and despite the Victorian tone of the writing—is still a gripping story. Wells was interested in exploring possibilities and saying things; much of what he has to say still has interest, partly because he foresaw to an extent how the human dynamic would shape the course of what less thoughtful writers merely assumed would bring about heaven on earth. Many of his technological ideas are passe; many more have borne fruit; but nearly all of his psychological predictions, in this novel, have proven valid.



THE SATIRE. Utopian dreams may rise and fall; and when they fall, they're as likely to fall upon the rocks of human folly—a natural upcropping that has not eroded with time, and isn't likely to. Petronius' "Satyricon", though over fifteen hundred years old, is nearly as funny today as when it was written. (I say "nearly", because some of the jibes are necessarily obscure to us; even when explained by historians, they cannot

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be as risible to us as they were to the author's contemporaries.) And it may very well be as funny in another fifteen hundred years. That is an optimistic point of view; a pessimistic one may object that one Bomb too many will have eliminated the audience for it.

Satire, then, is rooted in basic human folly—basic in that while specific and often topical absurdities and lunacies are used for the takeoff point, these spring from such universal behaviour that the joke still gets across. Consider, for example, this bit from Voltaire's "Candide".

"The orator's wife, putting her head out the window and perceiving a man who doubted whether the Pope was Antichrist, emptied a chamber-pot over his head—Hwavens! To what excess will not a zeal for religion carry the ladies!"

It's all the more amusing today, since hardly anyone considers the issue worthy of debate, let alone getting violent about it. But the above is an excellent example of the satiric procedure, taking as it does an issue (religious beliefs) whereon people throughout recorded history have been known to behave in a homicidally irrational manner and showing it in a ridiculous light; another approach is to take more or less harmless folly

and exaggerate it into hilarious lunacy.

TWENTY years ago, the mention of "satire" to a science fictionist would have brought the name "Stanton A. Coblenz" to mind at once. Such novels as "After 12,000 Years", (*Amazing Stories Quarterly*, Spring 1929), "The Blue Barbarians" (*Amazing Stories Quarterly*, Summer 1931), and "In Caverns Below" (*Wonder Stories*, March, April, May 1935) were regarded as "classics". Re-reading these stories today reveals much more crudity of style, absence of characterization, and general superficiality than was apparent to most of us when we first read them. However, sections are still very funny and uncomfortable reading when we consider that, between 1929 and 1935, many of us thought that a good deal of the behaviour satirized was safely relegated to the past.

And to this extent, Coblenz' satires are successful; for the successful satire must arouse the reader's laughter and give him a feeling of discomfort at the same time, though not necessarily in equal doses. In the best examples, the tensions aroused by discomfiture are released by hilarity, which then tapers off into new tension. I cannot think of any out-

standing examples in recent science fiction, though a couple of reasonable facsimiles come to mind: Eric Frank Russell's "And Then There Were None" (*Assounding Science Fiction*, June, 1951) and Gordon R. Dickson's, "Perfectly Adjusted" (*Science Fiction Stories*, July, 1955).

To burlesque something usually isn't difficult, but the burlesque rarely goes beneath the surface; it can be very funny for all that. Satire, however, requires a deeper understanding of just what it is that is being satirized; for that reason, the successful satire does not go out of date where burlesque often does. The satire says a great deal more than is apparent before several readings, while you'll usually catch all the laughs and whatever discomfort there is in a burlesque the first time.

That there aren't many (if any) great satires in science fiction isn't astonishing, when you consider that the fund of great satires in Western literature generally is rather small.

THE ALTERNATE society tale may, as noted above, contain elements of satire and of prophecy or utopia; but neither of these are its basic intent. Its main interest is to explore human behaviour through examination of the motives and aims which might arise in a society basically different from any we know. In some cases, human behaviour is explored in reverse—that is, the "people" in the story are not human beings, and the author has deliberately set out to make them as un-human as possible, yet still work out a logic and rationale for what they do.

The canvas may be any size. While the most tempting, and most widely used device is to paint the picture large and show the society

from the top down, the small-scale method can be effective. Here the nature of the society is deduced from the behaviour of one member of it, or a small group of members; we never go inside the country itself.

The possible methods of constructing an alternate society are virtually limitless. Recent examples have been (a) aspects of present society elevated into the base; in "The Duplicated Man" by James Blish and Michael Sherman (*Dynamic Science Fiction*, August 1953) the federated states are ruled by the Security Council of the United Nations; (b) aspects of former societies as the base; in "Sons of The Tree", by Jack Vance (*Thrilling Wonder Stories*, June 1951) we look at a Druidic state; (c) aspects of philosophical opinions of a former society: in "A Matter of Faith" by Michael Sherman, (*Space Science Fiction*, September 1952), Oswald Spengler's theory of the Magian Society, based on the actual early Christian society in North Africa, is used; (d) author-invented bases, in "The Worshipers" by Damon Knight (*Space Science Fiction*, March 1953) an alien society is based upon total adaption to the viewpoint of any member, or outsider, who can offer something they haven't tried before.

(Our letter department is wide open to readers interested in extending this list, adding types or digging up better examples of those listed above.)

I would say that the alternate society type of sociological story is the most fruitful for the present science fiction; and if it hasn't brought forth any certified masterpieces as yet, there's no cause for despair. After all, it is a newer approach to the sociological story by some centuries.

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